43623

ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——*Virg.*

VOL. XIV.

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MDCCCXX.

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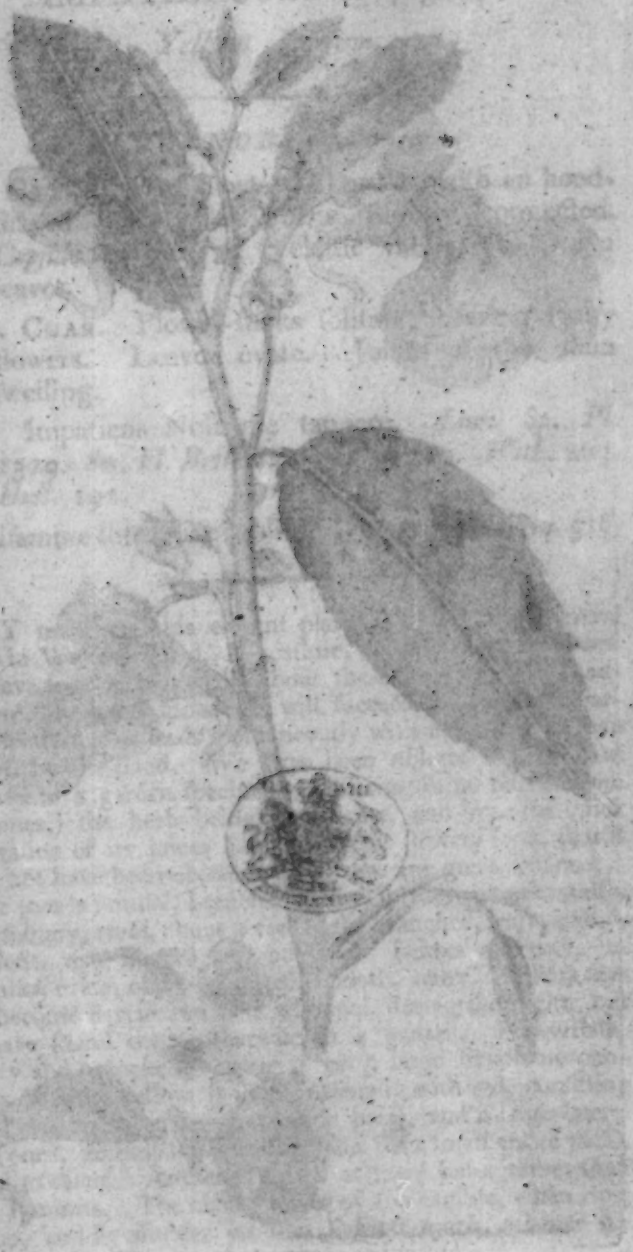


Pubd 1 Oct. 1816 by Ed. Howard, London.

IMPATIENS *Noli me tangere.*

Yellow Balſam.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 5 petals, irregular, with an hood-ſhaped nectary. *Antheræ* ſlightly connected. *Capſule* ſuperior, of 5 elaſtic valves. *Cal.* of 2 leaves.

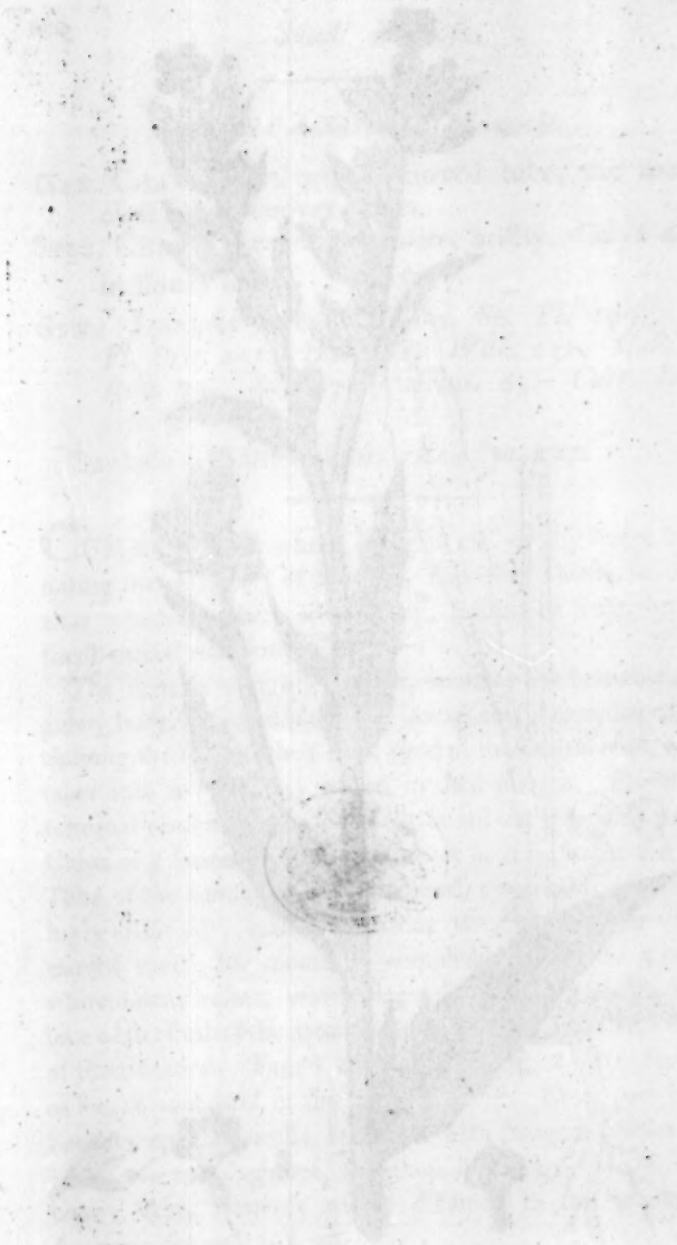
SPEC. CHAR. Flower-ſtalks ſolitary, bearing many flowers. Leaves ovate. Joints of the ſtem ſwelling.

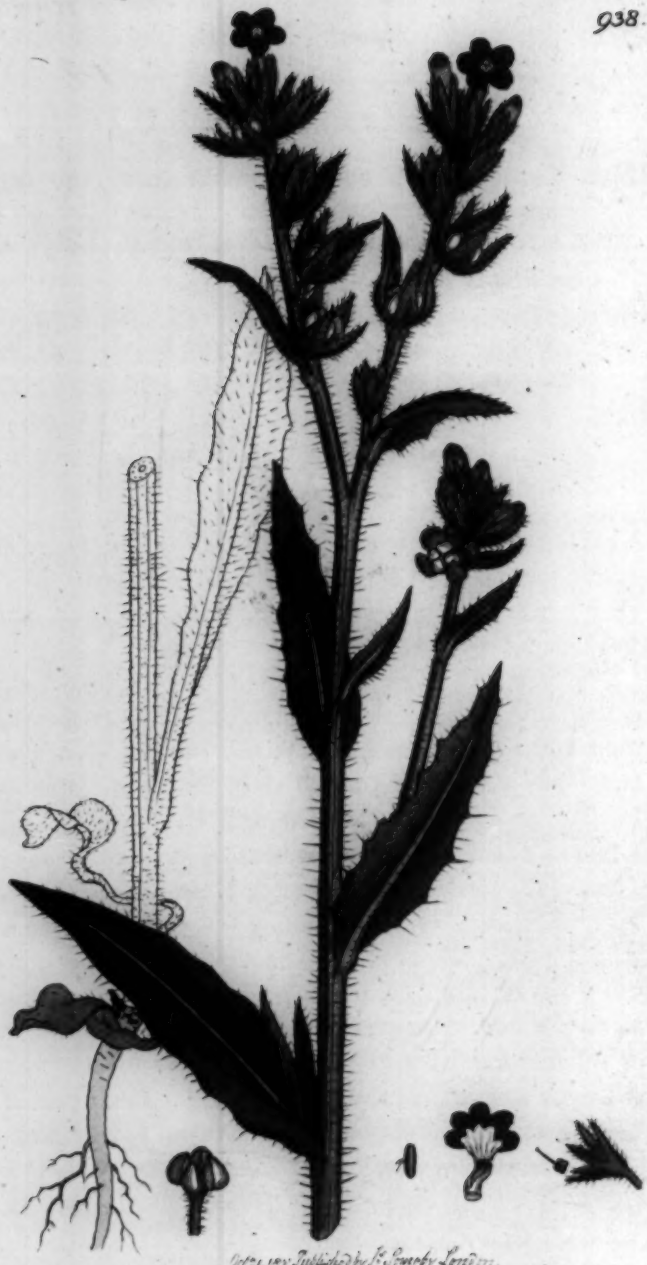
SYN. Impatiens Noli me tangere. *Linn. Sp. Pl.* 1329. *Sm. Fl. Brit.* 244. *Hudſ.* 380. *With.* 263. *Hull.* 192.

Balſamine lutea, ſive Noli me tangere. *Raii Syn.* 316.

RAY mentions this elegant plant as a native of ſeveral places in Weſtmoreland, Lancaſhire, Yorkſhire, and Wales. We have ſeen it plentifully about the north end of Winandermere, in watery ſpots. It will ſucceed well in ſhady gardens, ſcattering its ſeeds ſpontaneouſly with more ſucceſs than if ſown by the hand. We have been obliged now to have recourſe to a garden ſpecimen, (differing in no reſpect from wild ones,) the herb being ſo delicate, and from the quick evaporation of its juices liable to wither ſo very ſoon, that it could not have been obtained freſh from any great diſtance.

The root is annual, branched, fleſhy, ſpreading horizontally. Stem ſolitary, erect, about 2 feet high, branched, leafy, round, ſucculent, very ſmooth and poliſhed. Leaves alternate, on footſtalks, ovate, obtuſe, ſerrated, ſmooth, veiny. Villars ſays they become flaccid and as if withered, during the night, but we have found them otherwiſe in a garden. Flowerſtalks axillary and branched, bearing 4 or 5 large handſome pendulous flowers, yellow ſpotted internally with red, conſiſting of a horn-ſhaped nectary, 1 upper petal, and 2 large lateral lobed ones, accompanied at the baſe by 2 ſmall entire petals united to them. Antheræ united at their baſes rather than their ſummits. The elaſtic valves of the capſule, when ripe, curl up, and fly aſunder on the ſlighteſt touch, whence the common name *Touch me not.*





Peter. 1801. Published by J. Sowerby, London.

LYCOPSIS arvenſis.

Small Bugloſs.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* with a curved tube, the mouth cloſed with convex ſcales.

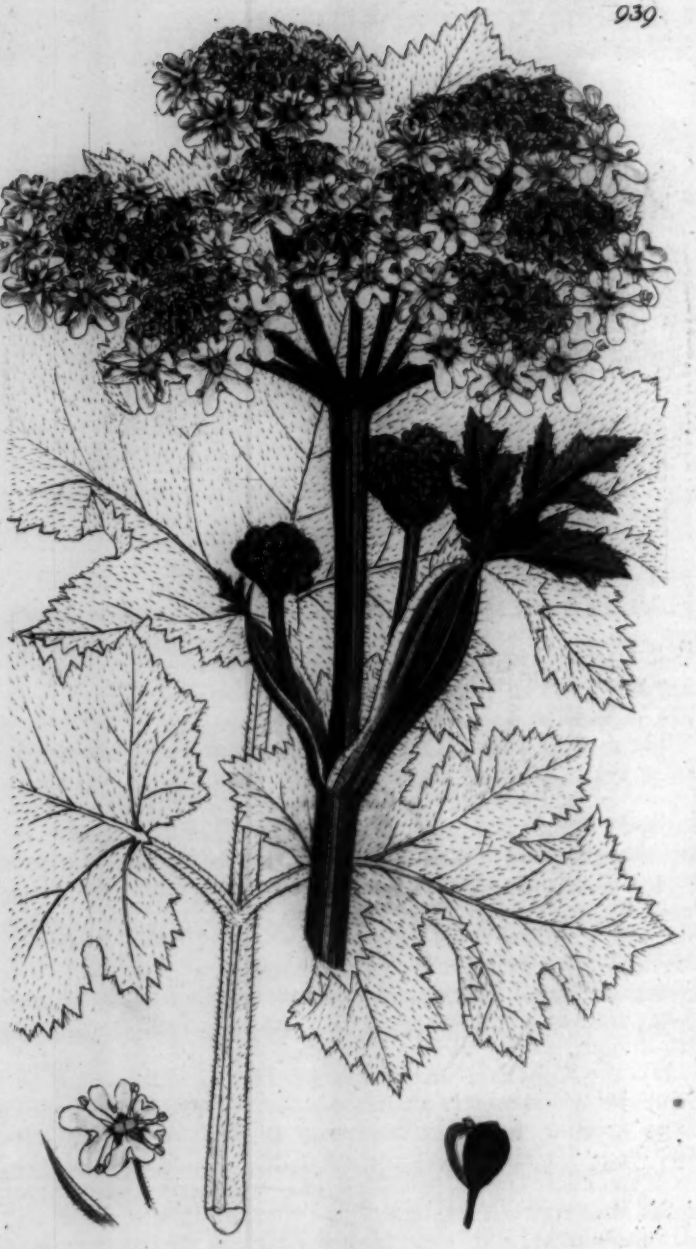
SPEC. CHAR. Leaves lanceolate, briſtly. Calyx while in flower erect.

SYN. Lycopſis arvenſis. *Linn. Sp. Pl.* 199. *Sm. Fl. Brit.* 221. *Hudſ.* 82. *With.* 231. *Hull.* 47. *Relh.* 79. *Sibth.* 71. *Abbot.* 43. *Curt. Lond. faſc.* 5. *t.* 17.

Bugloſſa ſylveſtris minor. *Raii Syn.* 227.

COMMON every where in fields and on dry hedge banks during the early part of ſummer, flowering chiefly in June, after which the herb is dried up, ſcatters its ſeeds, and the ſmall annual root withers away.

The ſtem is upright, ſtraight, more or leſs branched, angular, leafy. Leaves alternate, lanceolate; heart-ſhaped, and claſping the ſtem at their baſe, (except the radical ones, which taper into a footſtalk,) waved in their margin. Flowers in terminal revolute ſpikes ſoon lengthened out into leafy *racemi*. Calyx of 5 lanceolate ſegments, erect both in flower and fruit. Tube of the corolla white, cylindrical, remarkably, and ſeemingly artificially, bent, containing the 5 ſhort ſtamina at the curved part. Its mouth is completely cloſed by 5 convex white downy valves, which elegantly contraſt with the bright blue of the limb of the corolla, and entirely conceal all the organs of fructification. Four vertical angular rugged naked ſeeds are at length contained in the enlarged calyx. Every part of the herb, except the corolla, is clothed with pungent briſtles. Its juices are mucilaginous, like thoſe of Borage, to which it is nearly akin, however widely different in the corolla and ſtamina; ſee *vol.* 1. *t.* 36.



Curtis 1801. Published by J. Sowerby, Strand.

HERACLEUM Sphondylium.

Common Cow Parſnep.

PENTANDRIA Digynia.

GEN. CHAR. *Fruit* elliptical, notched, compreſſed, ſtriated, dilated in the margin. *Flowers* radiant. *Petals* notched, with an inflexed point. *General Involucrum* deciduous.

SPEC. CHAR. Leaves pinnate: leaflets pinnatifid, cut and ſerrated.

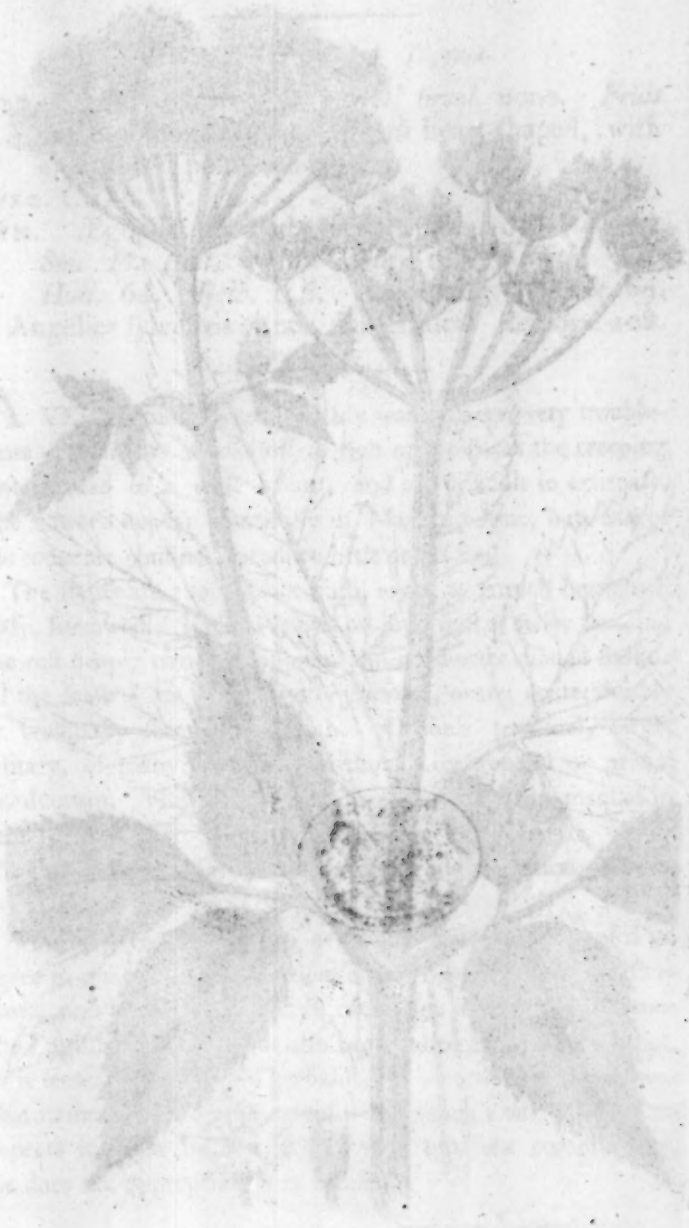
SYN. Heracleum Sphondylium. *Linn. Sp. Pl.* 358. *Sm. Fl. Brit.* 307. *Hudſ.* 117. *With.* 295. *Hull.* 58. *Relh.* 114. *Sibth.* 95. *Abbot.* 61.

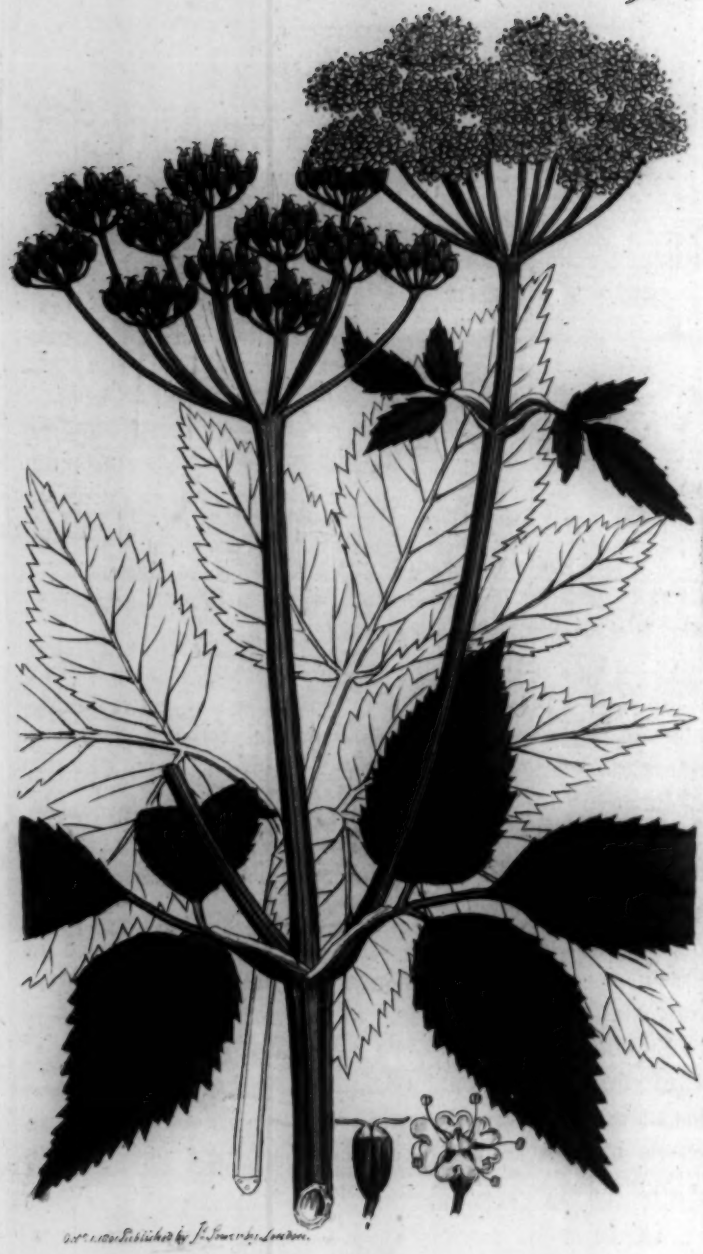
Sphondylium. *Raii Syn.* 205.

EVERY one knows the Cow Parſnep, the largeſt and moſt conſpicuous of our common umbelliferous plants, whoſe tall ſtems and great white or reddiſh umbels are to be ſeen throughout the month of July by road-ſides, in thickets, groves, borders of fields, and even meadows.

The root is biennial, tap-ſhaped. Stem erect, branched, leafy, ſtout, hollow, furrowed and rough, moſtly 4 feet high. Leaves large, ternate or pinnate, variouſly pinnatifid, cut and ſerrated, downy beneath; their common ſtalk furniſhed with one large inflated ribbed ſtipula. Umbels flattiſh, of many rays. General and partial involucra of ſeveral lanceolate ſharp leaves, the former in particular ſoon falling off. Petals unequal, inverſely heart-ſhaped with an inflexed tooth between the lobes, a circumſtance common to many flowers of this natural order, but in none more conſpicuous than in the outermoſt petals of the preſent plant. Fruit elliptical, broad and flat, ſmooth, with 3 ribs on each ſide.

We are authorized to ſay that the *H. anguſtifolium* of all Britiſh writers is merely a narrow-leaved variety of this, ſometimes growing from the ſame root, as Mr. Woodward firſt remarked. It has been ſuſpected that Profeſſor Jacquin has made too many ſpecies in this genus; and it is neceſſary here to add that even the *H. anguſtifolium* of *Fl. Brit.* proves on examination to be different from the Linnæan plant to which it was, on the faith of two moſt excellent botaniſts, referred, and to which the deſcription in *Fl. Brit.* belongs.





Oct. 1.1807. Published by J. Sowerby, London.

ÆGOPODIUM Podagraria.

Gout-weed.

PENTANDRIA Digynia.

GEN. CHAR. *General or partial Involucrum* none. *Fruit* ovate-oblong, ribbed. *Petals* heart-ſhaped, with an inflexed point, unequal.

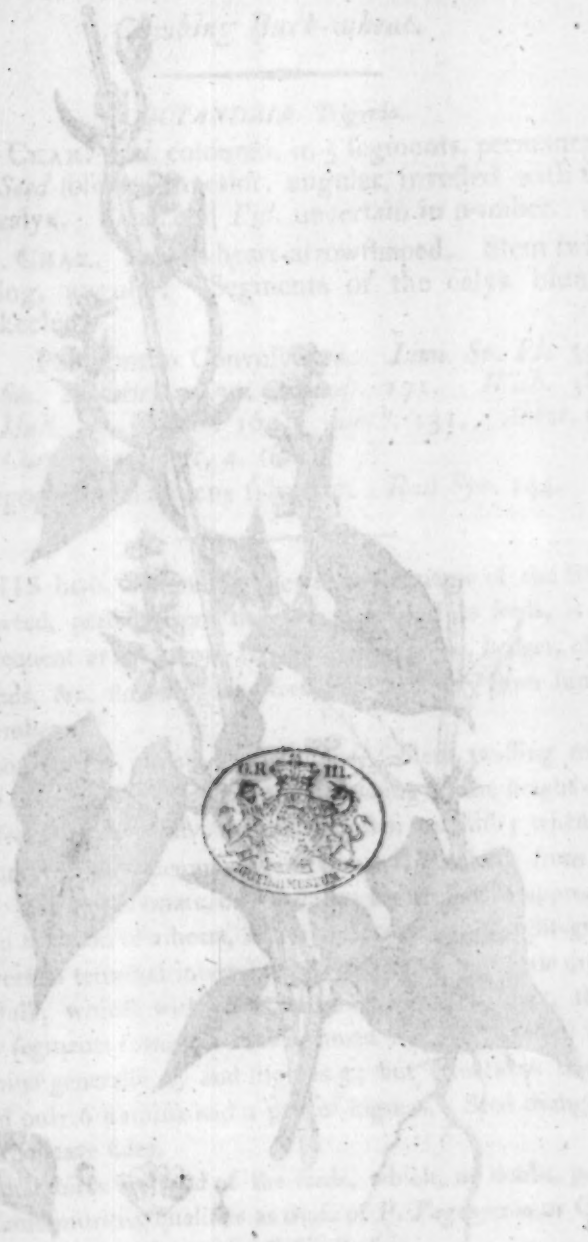
SPEC. CHAR. . . . . .

SYN. Ægopodium Podagraria. *Linn. Sp. Pl.* 379. *Sm. Fl. Brit.* 334. *Hudſ.* 129. *With.* 314. *Hull.* 64. *Relh.* 126. *Sibth.* 103. *Abbot.* 69. Angelica ſylveſtris minor, ſeu erratica. *Raii Syn.* 208.

A VERY general weed in ſhady waſte places, very troubleſome in gardens whoſe ſoil is rich or moiſt, as the creeping roots ſpread to a wide extent, and are difficult to extirpate. The flowers appear plentifully in May and June, but, except the roots are confined, produce little or no ſeed.

The ſtems are about a foot high, erect, not much branched, leafy, furrowed. Radical leaves on long ſtalks, twice ternate; the reſt ſimply ternate, oppoſite, and on ſhorter dilated ſtalks: all the leaflets are large, pretty uniform, ovate, acute, doubly or unequally ſerrated, ſmooth. Umbels terminal, erect, ſolitary, of many rays, but without any general or partial involucrum. Flowers pure white. Petals a little unequal in ſize, broad, heart-ſhaped from their incurved points. Fruit elliptical, rather compreſſed, ſmooth, with 3 prominent ribs to each ſeed.

The *Ægopodium* has an acrid pungent root, ſuppoſed to agree in qualities with the more active *Imperatoria* or Maſterwort, and formerly uſed as a cataplaſm in the gout, whence the Engliſh name. It has alſo been called Herb-Gerard, not, as it ſeems, from our old herbaliſt, for according to Dodonæus that name is of Flemiſh origin; and though our countryman repeats it often in his herbal, with apparent complacency, he does not appropriate it to himſelf.



Oct 1st 1801 Published by J. Sowerby London.

POLYGONUM Convolvulus.

Climbing Buck-wheat.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 ſegments, permanent. *Seed* ſolitary, ſuperior, angular, inveſted with the calyx. *Stam.* and *Piſt.* uncertain in number.

SPEC. CHAR. Leaves heart-arrowſhaped. Stem twining, angular. Segments of the calyx bluntly keeled.

SYN. Polygonum Convolvulus. *Linn. Sp. Pl.* 522. *Sm. Fl. Brit.* 430. *Hudſ.* 171. *With.* 385. *Hull.* 86. *Relh.* 162. *Sibth.* 131. *Abbot.* 90. *Curt. Lond. faſc.* 4. *t.* 29.

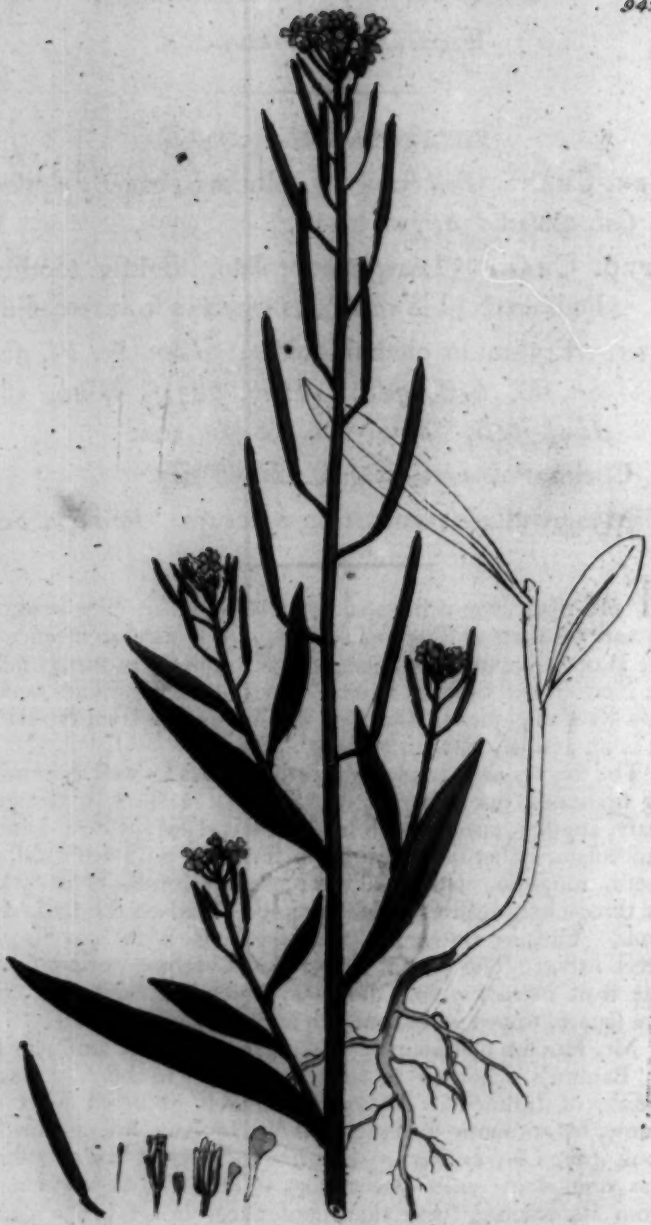
Fegopyrum ſcandens ſylveſtre. *Raii Syn.* 144.

THIS herb, commonly known by the name of the Black Bindweed, perhaps from the dark colour of its ſeeds, is but too frequent among corn, as well as in gardens, hedges, oſier-grounds, &c. flowering and ſeeding abundantly from June to September.

Root annual, ſmall, and fibrous. Stem twiſting round every thing in its way, and thus climbing to the height of 5 or 6 feet, angular, leafy, branching, often roughiſh; when not ſupported it is procumbent and ſhort, branching from the baſe. Leaves alternate, on footſtalks, arrow-ſhaped approaching to the form of a heart, entire, waved, ſmooth, light-green. Flowers in terminal interrupted ſpikes, each on a little drooping ſtalk, whitiſh with more or leſs of a reddiſh tinge, the 3 outer ſegments furniſhed with a broad flat (not dilated) keel. Stamina generally 8, and ſtigmas 3; but ſometimes may be found only 6 ſtamina and a pair of ſtigmas. Seed triangular, with concave ſides.

Small birds are fond of the ſeeds, which, no doubt, poſſeſs the ſame nutritive qualities as thoſe of *P. Fagopyrum* or Common Buck-wheat, but are inferior in ſize.

G.R. III.



Dec. 1, 1804. Published by Sol. Leverby, London.

ERYSIMUM cheiranthoides.

Treacle Hedge-muſtard.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* ſtraight, columnar, exactly ſquare. *Cal.* cloſed. *Stigma* blunt.

SPEC. CHAR. Leaves lanceolate, ſlightly toothed. Pods erect. Flower-ſtalks when in fruit ſpreading.

SYN. Eryſimum cheiranthoides. *Linn. Sp. Pl.* 923. *Sm. Fl. Brit.* 708. *Hudſ.* 287. *With.* 585. *Hull.* 146. *Relh.* 251. *Sibth.* 202.

Cheiranthus eryſimoides. *Hudſ.* 287.

Myagro affinis planta, ſiliquis longis. *Raii Syn.* 298.

THE plant here delineated is to be found in oſier grounds in various parts of England, nor is it of ſo rare occurrence as we at one time ſuppoſed, being not uncommon in turnip-fields in Norfolk and Suffolk, in which counties it ſometimes occurs as a weed in gardens. Our wild ſpecimen came from Norwich. It is an annual, flowering about July.

The ſtem is erect, varying greatly in ſize, as well as number of branches, according to the richneſs of the ſoil, ſtraight, leafy, angular, covered with ſmall cloſe-preſſed briſtles. Leaves lanceolate, either quite entire, or furniſhed with a few diſtant teeth, roughiſh, with ſmall, depreſſed, whitiſh, often forked or three-cleft, briſtles, which are alſo found on the ſtalks and pods. Flowers numerous, ſmall, yellow, with a yellowiſh erect calyx. The partial flower-ſtalks become horizontal as the fruit increaſes, but the pods themſelves ſtand erect, and are ſquare, tipped with a minute ſeſſile ſtigma.

Mr. Hudſon firſt adopted this plant from Ray, and was led by Bauhin's ſynonym to refer it, rightly, to the *E. cheiranthoides* of Linnæus. When he himſelf gathered what we know, by authentic ſpecimens, to be the ſame, he erroneouſly took it for *Cheiranthus eryſimoides*, and thus in his 2d edition has one plant under two names.—The Engliſh name aroſe from its entering into that nonſenſical hodge-podge called *Theriaca* or Venice Treacle.

Printed for Baldwin & Cradock, London.

FUMARIA capreolata.
Ramping Fumitory.

DIADELPHIA Hexandria.

GEN. CHAR. *Cal.* 2-leaved. *Cor.* ringent. *Filaments* 2, membranaceous, each bearing 3 *antheræ*.

SPEC. CHAR. Spike lax. Pods ſingle-ſeeded, globoſe. Stem climbing by means of the twiſted foot-ſtalks. Leaflets wedge-ſhaped, lobed.

SYN. Fumaria capreolata. *Linn. Sp. Pl.* 985. *Sm. Fl. Brit.* 751. *With.* 621. *t.* 30. *Hull.* 158. *Sibth.* 217. *Curt. Lond. faſc.* 6. *t.* 47. *Dickſ. H. Sicc. faſc.* 9. 9.

F. officinalis β. *Hudſ.* 309. *Relh.* 267.

F. major ſcandens, flore pallidiore. *Raii Syn.* 204.

MR. CURTIS has, in our opinion, ſufficiently proved this to be a diſtinct ſpecies, and not a variety of the Common Fumitory. The much greater ſize of the whole herb; its leſs glaucous hue; the twiſting foot-ſtalks, which, like tendrils, ſupport it upon other plants, and enable it to riſe to 3 or 4 feet in height; the paler, leſs gaping flower, with a more projecting ſpur; the larger and more elegant calyx-leaves, all ſerve to diſtinguiſh it; nor does the ſeed-veſſel, ſo important in the ſpecific diſtinctions of *Fumariæ*, entirely fail us in this inſtance, for the pods are here more globoſe than in the *officinalis*, and by no means obcordate, though marked with a ſlight depreſſion on each ſide of the inſertion of the ſtyle.

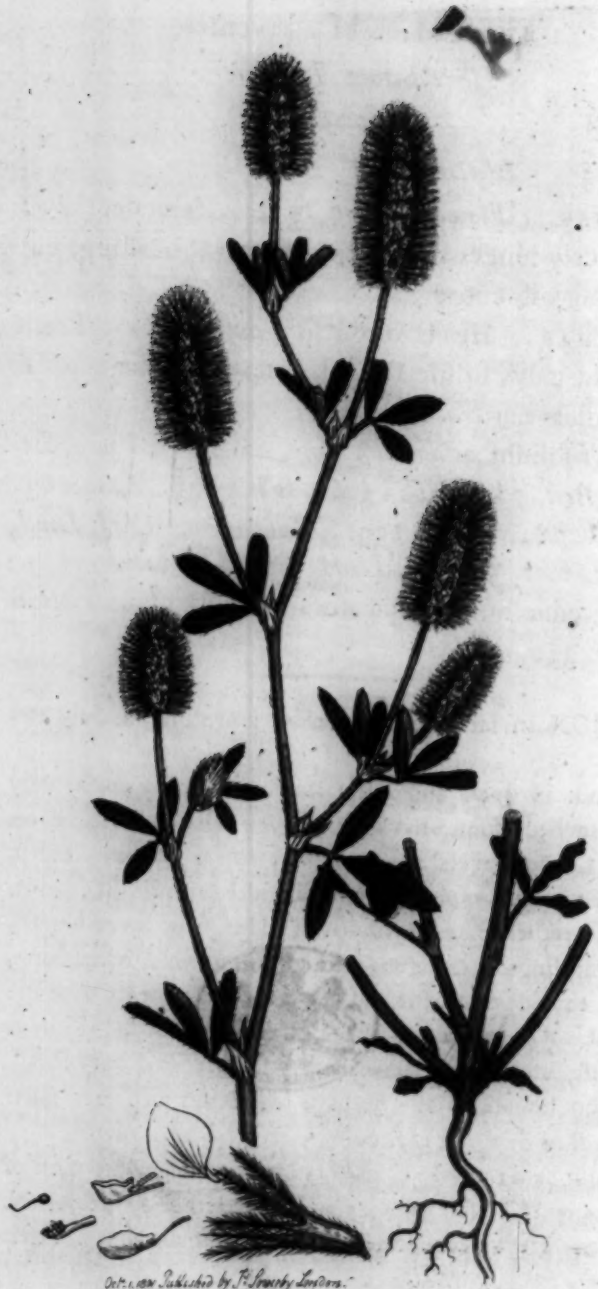
F. capreolata is annual, flowering from June to September. It occurs here and there in fields and garden grounds, as about Batterſea; but Mr. Sowerby and Mr. Curtis have remarked it to be more abundant, and ſeemingly at home, in Cornwall and Devonſhire. Mr. W. Borrer has communicated it to us from Suſſex.

The delineator of Dr. Withering's plate has erroneouſly repreſented tendrils diſtinct from the footſtalks.

FUMARIA capreolata.

Ramping Fumitory.

G.R. III.



Oct. 1. 1800 Published by J. Sowerby London.

TRIFOLIUM arvenſe.

Hare's-foot Trefoil.

DIADELPHIA Decandria.

GEN. CHAR. *Flowers* more or leſs capitate. *Pod* ſcarcely longer than the calyx, never burſting, but falling off entire.

SPEC. CHAR. Heads very hairy, cylindrical. Teeth of the calyx briſtle-ſhaped, longer than the corolla. Leaflets narrow-obovate.

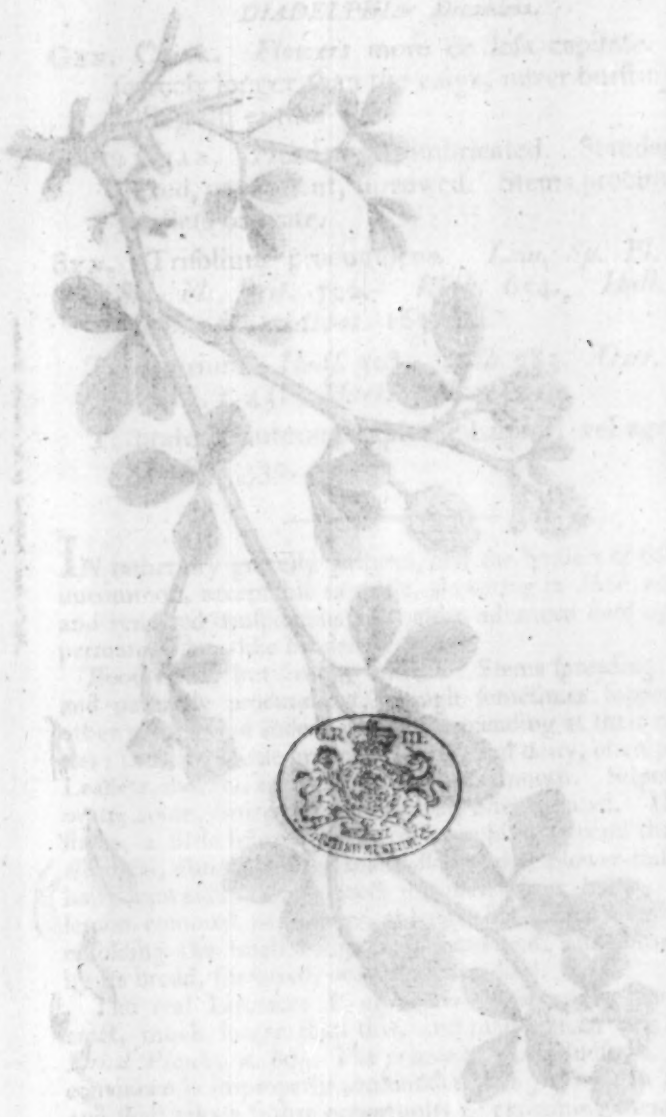
SYN. Trifolium arvenſe. *Linn. Sp. Pl.* 1083. *Sm. Fl. Brit.* 787. *Hudſ.* 326. *With.* 649. *Hull.* 163. *Relh.* 281. *Sibth.* 229. *Abbot.* 162. *Curt. Lond. faſc.* 6. *t.* 50. *Dickſ. H. Sicc. faſc.* 3. 8.

T. arvenſe humile ſpicatum, ſeu Lagopus. *Raii Syn.* 330.

COMMON in ſandy barren fields, flowering in July and Auguſt.

The root is ſmall and annual. Stem moſtly erect, very much branched, ſomewhat zigzag, round, hairy. Leaves on foot-ſtalks, the leaflets nearly ſeſſile, linear-obovate, hairy. Stipulæ lanceolate, often red, tapering into a briſtle-like point. Heads, or rather ſpikes, cylindrical, blunt, various in length, denſe, conſiſting of numerous pale-reddiſh flowers, whoſe long, tapering, equal, prominent and very hairy calyx-teeth give the whole ſpike a downy appearance. Corolla much ſhorter than theſe teeth, and almoſt concealed by them. Pod very ſmall. In maritime ſituations the herbage ſometimes becomes quite ſilky, ſee *Raii Syn. t.* 14. *f.* 2.

Far from being worthy of cultivation for fodder, like moſt of its genus, this Trefoil appears to be altogether a weed to the farmer, nor are we acquainted with any animals that prefer it as food.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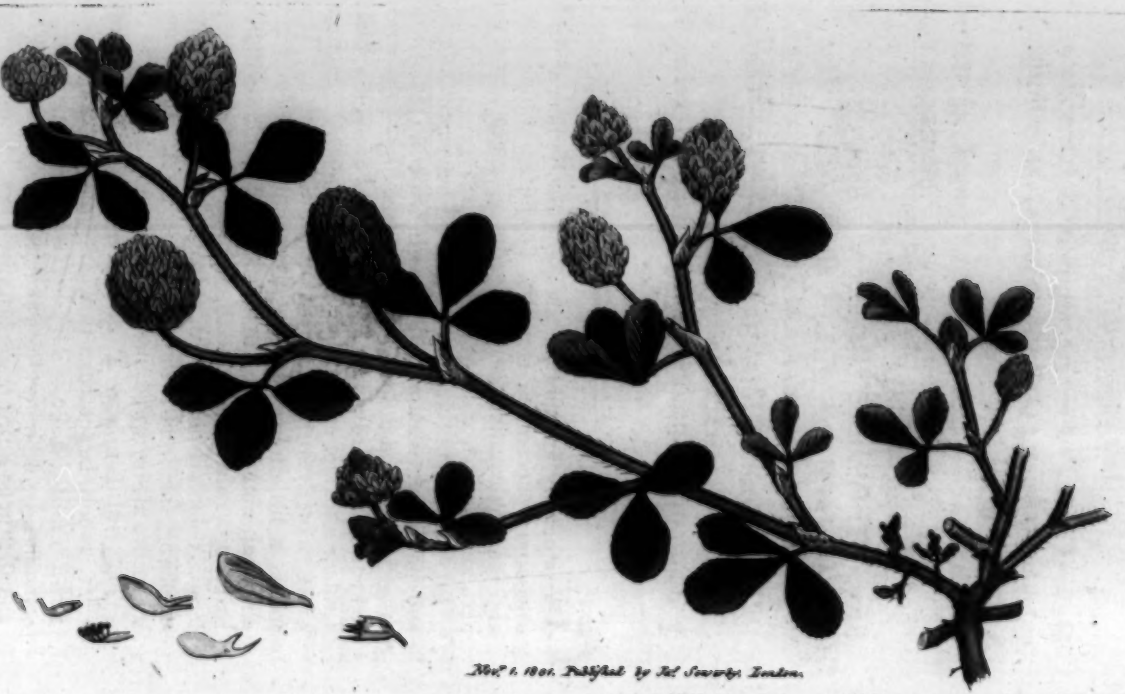


Nov.r 1. 1801. Published by Jas Sowerby, London.

TRIFOLIUM procumbens.

Hop Trefoil.

DIADELPHIA Decandria.

GEN. CHAR. *Flowers* more or leſs capitate. *Pod* ſcarcely longer than the calyx, never burſting, but falling off entire.

SPEC. CHAR. Heads oval, imbricated. Standard deflexed, permanent, furrowed. Stems procumbent. Leaflets obovate.

SYN. Trifolium procumbens. *Linn. Sp. Pl.* 1088. *Sm. Fl. Brit.* 792. *With.* 654. *Hull.* 164. *Sibth.* 230. *Abbot.* 163.

T. agrarium. *Hudſ.* 328. *Relh.* 283. *Curt. Lond. faſc.* 3. *t.* 45. *Mart. Ruſt. t.* 121.

T. pratenſe luteum, capitulo Lupuli, vel agrarium. *Raii Syn.* 330.

IN rather dry gravelly paſtures, and the borders of fields, not uncommon, acceptable to cattle, flowering in June and July, and rendered conſpicuous in a more advanced ſtate by its dry permanent hop-like heads.

Root ſmall, but ſtrong, annual. Stems ſpreading widely, and naturally procumbent, though ſometimes ſupported by other plants, and indeed generally aſcending at their extremities; they are a little branched, leafy, and hairy, often purpliſh. Leaflets obovate, emarginate, toothed, ſmooth. Stipulæ half-ovate, acute, entire, ſtrongly ribbed, often ciliated. Heads on ſtalks, a little ſpicate, frequently reaching beyond the leaves, elliptical, obtuſe, denſe, many-flowered. Flower-ſtalks moſt hairy upwards. Calyx-teeth unequal, taper, hairy. Corolla lemon-coloured, permanent, at length brown and membranous, enfolding the ſmall, elliptic, pointed pod, and diſtinguiſhed by its broad, furrowed, or plaited, ſtandard.

The real Linnæan *T. agrarium* is an exotic plant, truly erect, much larger than this, and may be ſeen in Dickſon's *Dried Plants*, *n.* 80. The *procumbens* of Hudſon I am now convinced is improperly confounded with *filiforme* in *Fl. Brit.* and ſhall take a future opportunity of explaining them.

TRIFOLIUM procumbens.

Hop Trefoil.

DIADELPHIA Decandria.

Gen. Char. Flowers more or less capitate. Pod scarcely longer than the calyx, never bursting, but falling off entire.

Spec. Char. Heads ovate, imbricated. Standard deflexed, permanent, furrowed. Stems procumbent. Leaflets obovate.

Syn. Trifolium procumbens. Linn. Sp. Pl. 1088. Sm. Fl. Brit. 792. With. 654. Hull. 164. Sibth. 729. Abbot. 163.

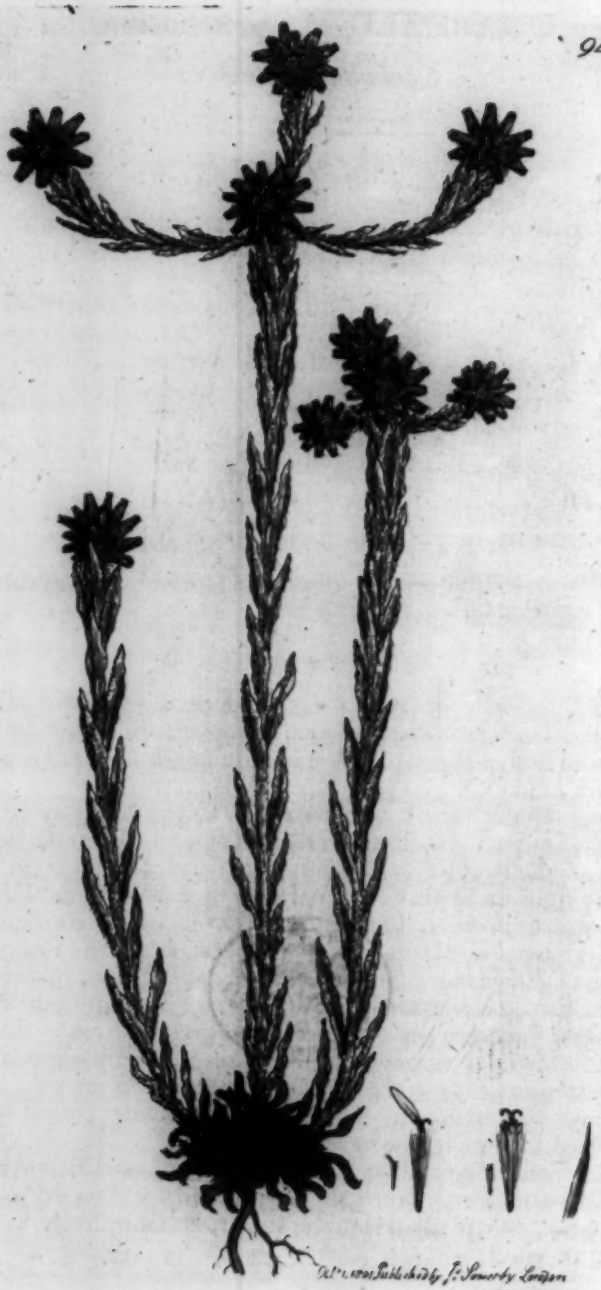
T. agrarium. Huds. 303. Pall. 283. Curt. Lond. Fasc. 3. t. 43. Mart. Rust. t. 121.

T. pratense luteum, capitulo Lupuli, vel agrarium. Moris. Sect. 330.

IN rather dry gravelly pastures, and the borders of fields, not uncommon, acceptable to cattle, flowering in June and July, and rendered conspicuous in a more advanced state by its dry permanent hop-like heads.

Root small, but strong, annual. Stems spreading widely, and naturally procumbent, though sometimes supported by other plants, and indeed ascending at their extremities; they are slightly branched, leafy, and hairy, often purplish. Leaflets obovate, emarginate, nerved, smooth. Stipulæ half-ovate, acute, entire, strongly ribbed, clasping. Heads ovate, a little spicate, frequently reaching beyond the leaves, elliptical, obtuse, dense, many-flowered. Flower-stalks scarcely upright. Calyx-teeth unequal, hairy. Corolla lemon-coloured, permanent, at length brown and membranous, enfolding the small, elliptic, pointed pod, and distinguished by its broad, furrowed, or plaited standard.

The real Linnæan T. agrarium is an exotic plant, truly erect, much larger than this, and may be seen in Dickson's Dried Plants, v. 80. The synonyms of Hudson I am now convinced is improperly confounded with this, see in Fl. Brit. and shall take a future opportunity of explaining them.



Published by J. Sowerby, London

GNAPHALIUM germanicum.

Common Cudweed.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Down* rough or feathery. *Cal.* imbricated; with coloured membranous ſcales. *Florets* of the radius awl-ſhaped. Some *florets* of the diſk occaſionally abortive.

SPEC. CHAR. Stem erect, proliferous. Leaves lanceolate. Heads globoſe, many-flowered, lateral as well as terminal.

SYN. Gnaphalium germanicum. *Sm. Fl. Brit.* 874. *Hudſ.* 362. *With.* 716. *Hull.* 184.

G. minus, ſeu Herba impia. *Raii Syn.* 180.

Filago germanica. *Linn. Sp. Pl.* 1311. *Relh.* 327. *Sibth.* 262. *Abbot.* 189.

DRY gravelly or ſandy fields produce this plant in abundance. Its firſt flowers appear in June or July, but its repeatedly branching ſtem bears a ſucceſſion of freſh ones to the end of autumn.

Root annual, ſmall. Stems at firſt a ſpan high, erect and ſimple, leafy and woolly, terminated by a ſolitary round ſeſſile head of numerous flowers: but two or more branches ſoon ſpring from under this head, point upward, flower, and branch in a ſimilar manner, ſo that the offspring as it were exalting itſelf above the parent has given occaſion to the ingenious name of *Herba impia*, or Wicked Cudweed. Leaves numerous, alternate, erect, lanceolate, waved, woolly on both ſides. Flowers ſpreading in every direction, cylindrical. Calyx-leaves browniſh, ſhining, tapering, ſmooth, with a green rib. Florets pale yellow; the hermaphrodite only 2 or 3; female ſeveral, very ſlender; both kinds producing perfect ſeed, crowned by rough down.

The name Cudweed has ariſen from a ſuppoſed power in this herb to provoke rumination in cattle; and its dry woolly ſubſtance, when taken into the throat, is not unlikely to have ſuch an effect.

GNAPHALIUM germanicum.

Common Cudweed.

Gen. Char. Recept. naked. Down rough or feathery.
Cal. imbricated, with colored membranous scales.
Pappus of the radius awl-shaped. Some flowers of the disk occasionally abortive.

Spec. Char. Stem erect, procumbent. Leaves lanceolate, blended, lobate, many-flowered, lateral as well as terminal.

Syn. Gnaphalium germanicum. Sm. Fl. Brit. 874.
Huds. 362. With. 716. Hall. 1841.
G. minus, seu Herba impia. Raii Syn. 180.
Filago germanica. Linn. Sp. Pl. 1311. Relh. 327.
Smith. 464. With. 489.

DRY gravelly or sandy fields produce this plant in abundance. Its soft flowers appear in June or July, but its repeatedly branching stem bears a succession of fresh ones to the end of autumn.

Root annual, small. Stems at first a span high, erect and simple, leafy and woolly, terminated by a loftier round fertile head of numerous flowers: but one or more branches soon spring from under this head, point upward, flower, and branch in a similar manner, so that the offspring as it were exalting itself above the parent has given occasion to the imperious name of Herba impia, or Wicked Cudweed. Leaves numerous, alternate, erect, lanceolate, waved, woolly on both sides. Flowers spreading in every direction, cylindrical. Calyx-leaves brownish, shining, tapering, smooth, with a green rib. Florets pale yellow; the hermaphrodite only 2 or 3; female several, very slender; both kinds producing perfect seed, crowned by rough down.

The same Cudweed has often been supposed power in this herb to provoke rumination in cattle: and its dry woolly fibbiance, when taken into the throat, is not unlikely to have such an effect.

CERATOPHYLLUM. Linn.

Common Hornwort.

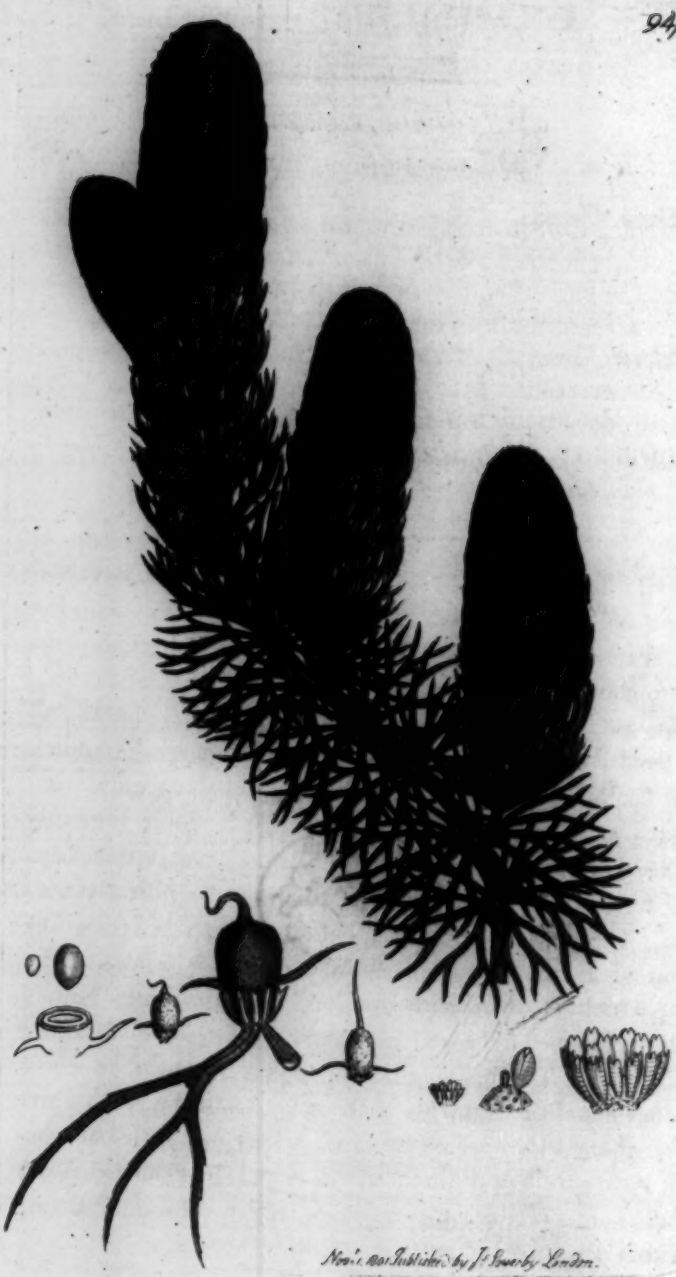
MONOECIA Polyandria.

Gen. Char. Male. *Cal.* in many-leaved whorls, one-leaved, many-cleft. *Stam.* 16 to 20.

Female. *Cal.* in many-leaved whorls, one-leaved, many-cleft, nearly sessile. *Seeds* solitary, ...

Spec. Char. *Fruit* ...

Syn. *Ceratophyllum* ...
Haller. 419. 4.
Sibth. 168.
Hydrocerato...
angulo.



Novr. 1801 Published by J.t Sowerby, London.

CERATOPHYLLUM demerſum.

Common Hornwort.

MONOECIA Polyandria.

GEN. CHAR. Male. *Cal.* in many diviſions. *Cor.* none. *Stam.* 16 to 20.

Female. *Cal.* in many diviſions. *Cor.* none. *Stigma* nearly ſeſſile. *Seed* ſolitary, coated.

SPEC. CHAR. Fruit armed with three ſpines.

SYN. Ceratophyllum demerſum. *Linn. Sp. Pl.* 1409. *Hudſ.* 419, α. *With.* 440. *Hull.* 211. *Relh.* 361. *Sibth.* 168.

Hydroceratophyllon folio aſpero, quatuor cornibus armato. *Vaill. Mem. de l'Acad. des Sciences* (*German edition*) 299. *t.* 15. *f.* 1. *Raii Syn.* 135.

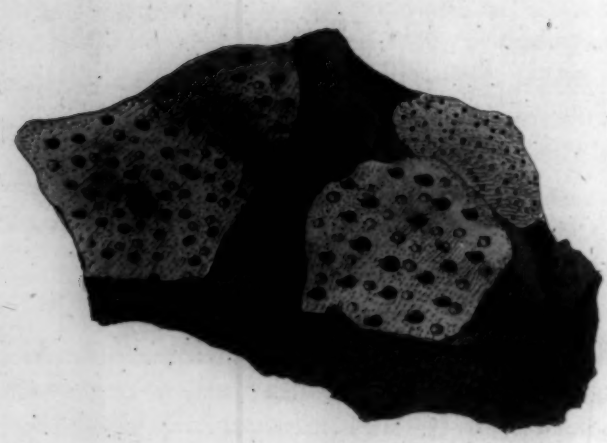
THE diligence of our obliging correſpondents the Rev. Mr. Holme and Mr. Pitchford, has this ſeaſon ſupplied us with the fructification of *Ceratophyllum demerſum*, which enables us now to complete the hiſtory of that genus: ſee *v.* 10. *t.* 679.

This ſpecies is very common in ſtagnant waters, ditches and fiſh-ponds, flowering in September. The root is perennial. Herb floating under water, and agreeing in habit with *C. ſubmerſum*, except that the leaves appear to be more diſtinctly toothed, or rougher, as Vaillant obſerves, and he mentions their ſegments as leſs numerous, which we can ſcarcely confirm. The flowers are ſeſſile, whorled, each placed in the boſom of a leaf. The true ſpecific character reſides in the fruit, which is armed with one long terminal ſpine, formed of the lengthened ſtyle, and two, generally ſhorter, divaricating lateral ones. To this may be added that we have in every inſtance found the ſegments of the calyx toothed at their ſummits, whereas they are entire in *C. ſubmerſum*. This if conſtant is an excellent diſtinction. It cannot be denied that the ſpecific names of theſe plants do not ſerve to diſtinguiſh them, and that *armatum* and *muticum* would be better.

CERATOPHYLLUM demersum.

Common Hornwort.

G.R. III.



Mart. 1820. Published by Jas. Sowerby, London.

LICHEN calvus.

Bald Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt grayiſh-white, pitted, very hard. Tubercles hemiſpherical, ſmooth, ſcattered, of a tawny red, without any border.

SYN. Lichen calvus, *Dickſ. Crypt. faſc.* 2. 18. *t.* 6. *f.* 4. *Achar. Prod.* 72. *With. v.* 4. 14. *Hull.* 288.
L. rupeſtris. *Achar. Prod.* 43 ?

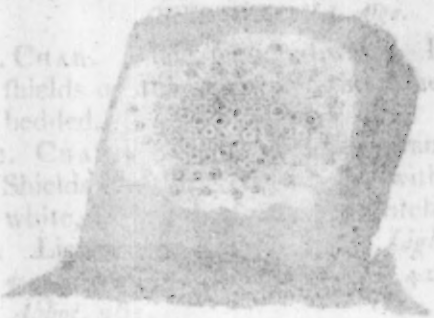
DISCOVERED by Mr. Dickſon on calcareous rocks in the highlands of Scotland, nor have we ſeen it on any other kind of ſtone. Mr. Griffith has favoured us with Welch ſpecimens.

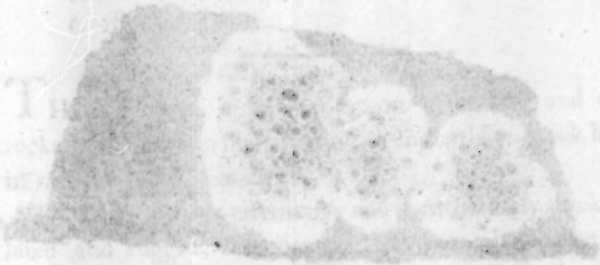
The cruſt is hard, and inſeparable from the ſtone, conforming to all its inequalities, but not otherwiſe rugged, except that it abounds with little round depreſſions, left by the tubercles when they fall off. Its colour is a pale grayiſh or browniſh white; its ſurface ſmooth, not at all mealy or granulated. Sometimes it is overrun by *L. niger* or ſome other minute black ſpecies. The tubercles are quite ſeſſile, hemiſpherical, hard, of a dull orange-colour more or leſs deep, quite deſtitute of any border, their ſurface generally quite ſmooth even and rather poliſhed, but ſometimes a little rugged or uneven. Their internal part is a white core half immerſed in the cruſt.

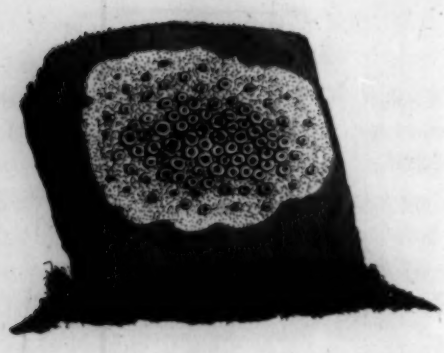
Mr. Turner, on the authority of Hoffmann's ſynonym, (*Verrucaria rufeſcens; Pl. Lich. t.* 17. *f.* 1,) has ſuggeſted the probability that the *L. rupeſtris* of Acharius, Scopoli, &c. is the ſame with this. If ſo, we cannot but preſer *calvus* as the moſt expreſſive name.

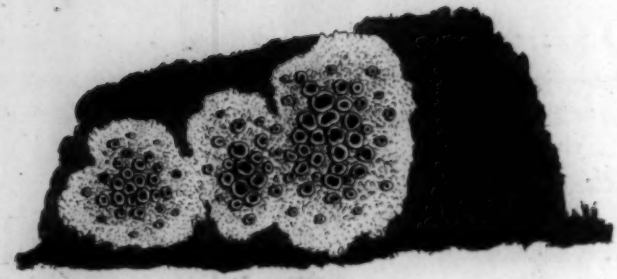
LICHEN ater.

Black-shielded Lichen.









Nov. 1. 1811. Published by Jas Sowerby, London.

LICHEN ater.

Black-ſhielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt rugged, granulated, white. Shields flattiſh, coal-black, with an elevated, white, at length zigzag and notched, border.

SYN. Lichen ater. *Hudſ.* 530. *Lightf.* 813. *With. v.* 4. 18. *Hull.* 289. *Relh.* 426. *Sibth.* 323. *Abbot.* 261.

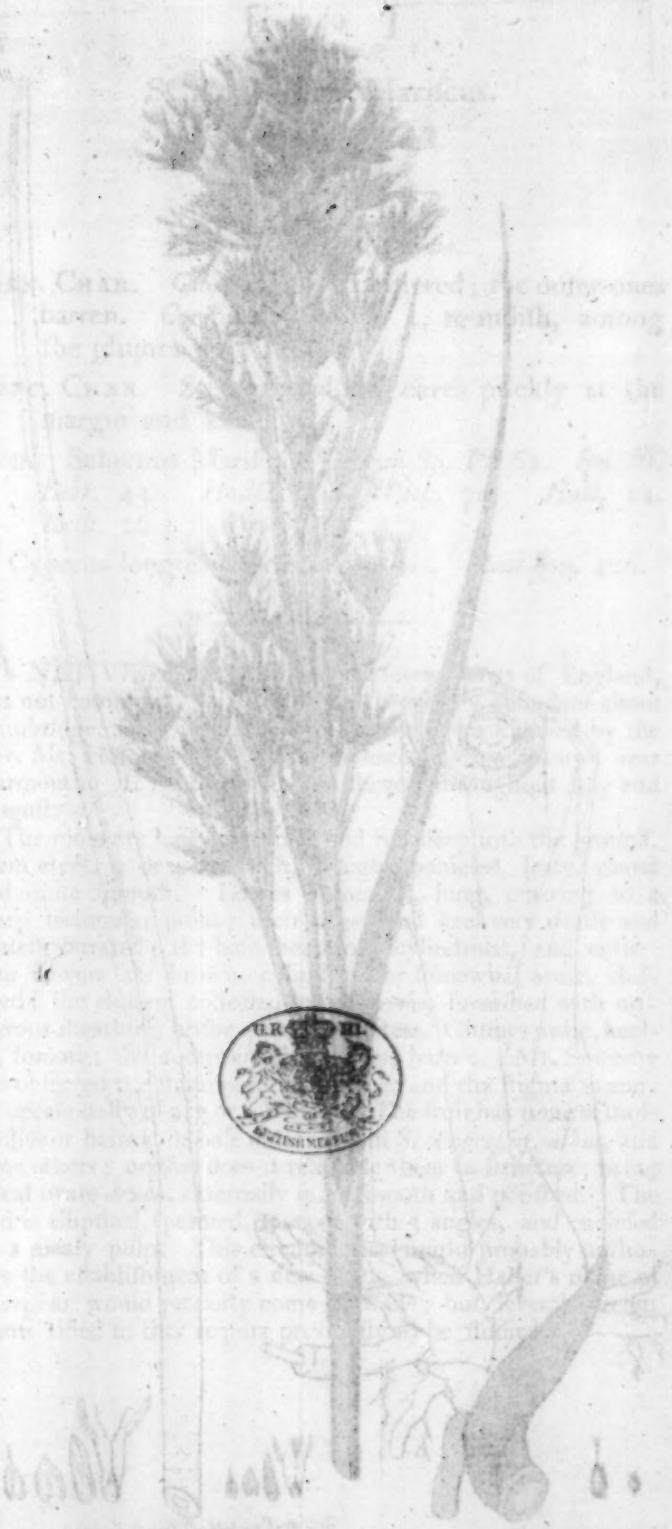
L. tephromelas. *Achar. Prod.* 67.

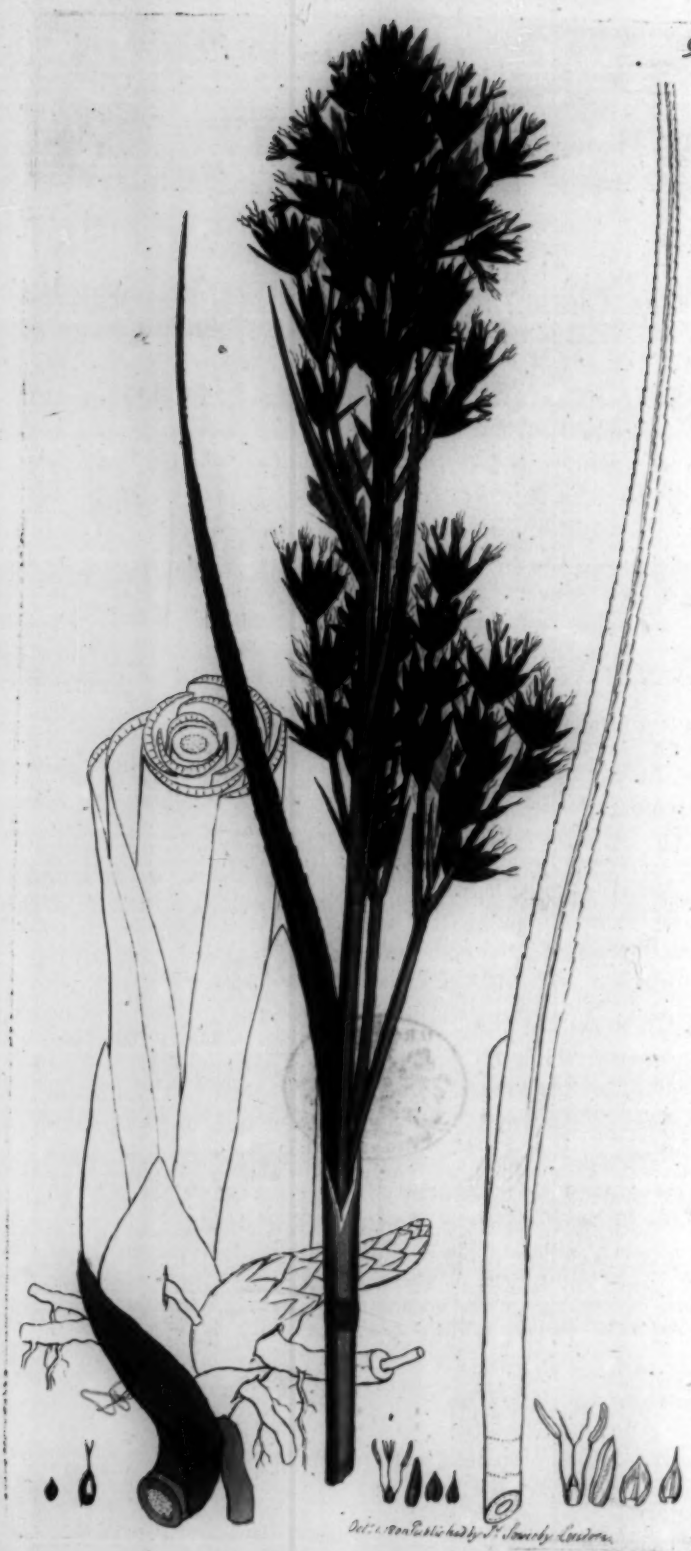
Lichenoides cruſtaceum et leproſum, ſcutellis nigricantibus majoribus et minoribus. *Dill. Muſc.* 133. *t.* 18. *f.* 15.

THIS Lichen is very common on walls, and even on rocks. It ſeems to flouriſh moſt abundantly on brick buildings in rather expoſed ſituations.

The cruſt ſpreads circularly, and is moderately thick, granulated and rugged, ſometimes very white, but often a little browniſh or greyiſh, not at all mealy. When dry it is very friable. The ſhields are extremely numerous, and often crowded together, ſeſſile, various in ſize. Their diſk nearly flat, or rather concave than convex, of a perfect char-coal black in every ſtage of their growth, by which it is diſtinguiſhed from all varieties of *L. ſubfuſcus*, a ſpecies we ſhall take a future opportunity of illuſtrating. The margin of the ſhields is conſpicuous by its elevation and whiteneſs, generally ſpeaking, for in ſome inſtances it is found tinged with lead-colour, and then the plant becomes *L. cineraſcens* of Withering, but has nothing to do with *t.* 4. *f.* 3. of Hoffmann's *Enumeratio*. By age this margin grows zigzag and variouſly notched.

Dillenius thought our *ſcrupoſus*, *v.* 4. *t.* 266. a variety of this.





Del. et pub. as the Act directs by J. Sowerby, London.

SCHŒNUS Mariſcus.

Prickly Bog-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, cluſtered; the outer ones barren. *Cor.* none. *Seed* 1, roundiſh, among the glumes.

SPEC. CHAR. Stem round. Leaves prickly at the margin and keel.

SYN. Schœnus Mariſcus. *Linn. Sp. Pl.* 62. *Sm. Fl. Brit.* 43. *Hudſ.* 14. *With.* 79. *Hull.* 12. *Relh.* 16.

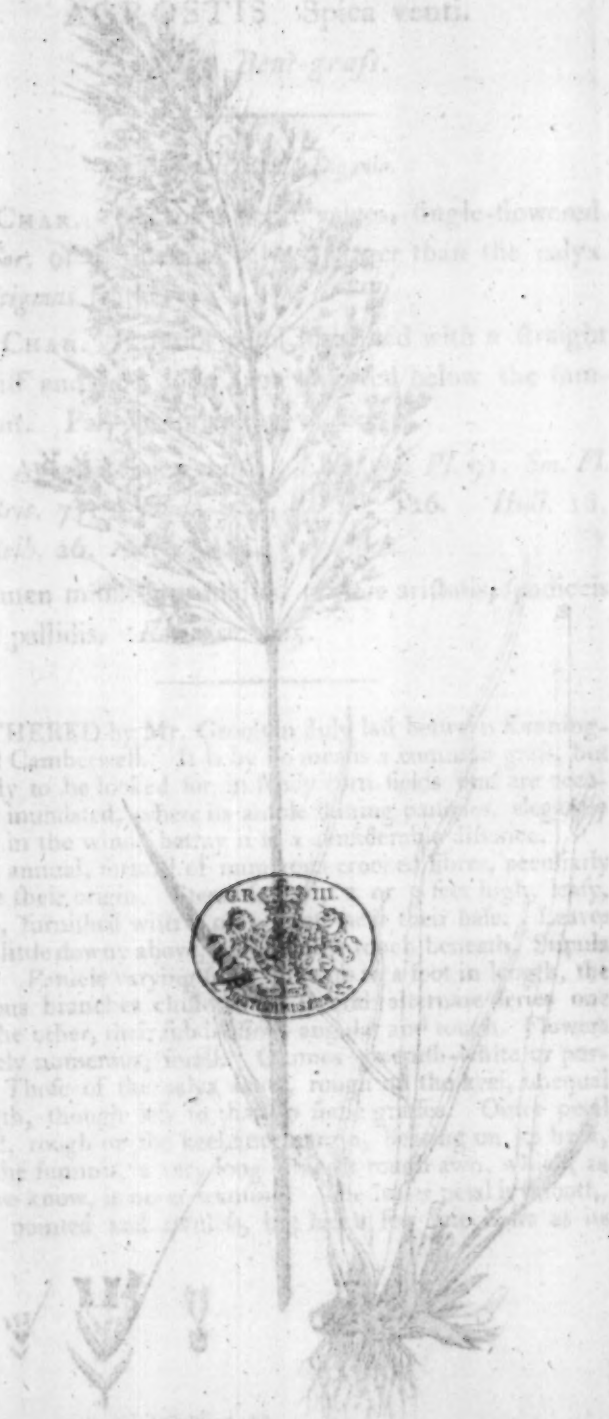
Cyperus longus inodorus ſylveſtris. *Raii Syn.* 426.

A NATIVE of boggy moors in ſeveral parts of England, but not common. It is ſaid to be peculiarly abundant about Cambridge, from whence our ſpecimens were ſupplied by the Rev. Mr. Holme. Mr. Wigg gathered it this autumn near Yarmouth. It is perennial, and flowers throughout July and Auguſt.

The roots are long, creeping, and run deep into the ground. Stem erect, 3 or 4 feet high, ſtraight, panicled, leafy, round and quite ſmooth. Leaves numerous, long, tapering to a ſharp triangular point; their edges and keel very neatly and acutely ſerrated; the baſe ſheathing, cylindrical, and entire. The flowers are brown, cylindrical or ſomewhat ovate, cluſtered; the cluſters collected into *corymbi*, furniſhed with numerous ſheathing briſtle-pointed bracteæ. Glumes ovate, keeled, ſmooth; the outermoſt ſhorteſt and barren. Mr. Sowerby has obſerved the ſtamina to be but two, and the ſtigma to conſiſt occaſionally of 2, 3 or 4 diviſions. The fruit has none of thoſe briſtles or hairs at its baſe obſervable in *S. compreſſus*, *albus*, and ſome others; neither does it reſemble them in ſtructure, being a real ovate *drupa*, externally quite ſmooth and poliſhed. The ſeed is elliptical, pointed, marked with 3 angles, and encloſed in a mealy pulp. This circumſtance might probably authorize the eſtabliſhment of a new genus, when Haller's name of *Mariſcus* would properly come into uſe; but ſeveral foreign plants allied to this require previouſly to be ſtudied.

AGROSTIS Spica venti.

Vent grass.



Gen. Char. [illegible] eagle-flowered.
Cor. [illegible] longer than the calyx
Stigmas [illegible]

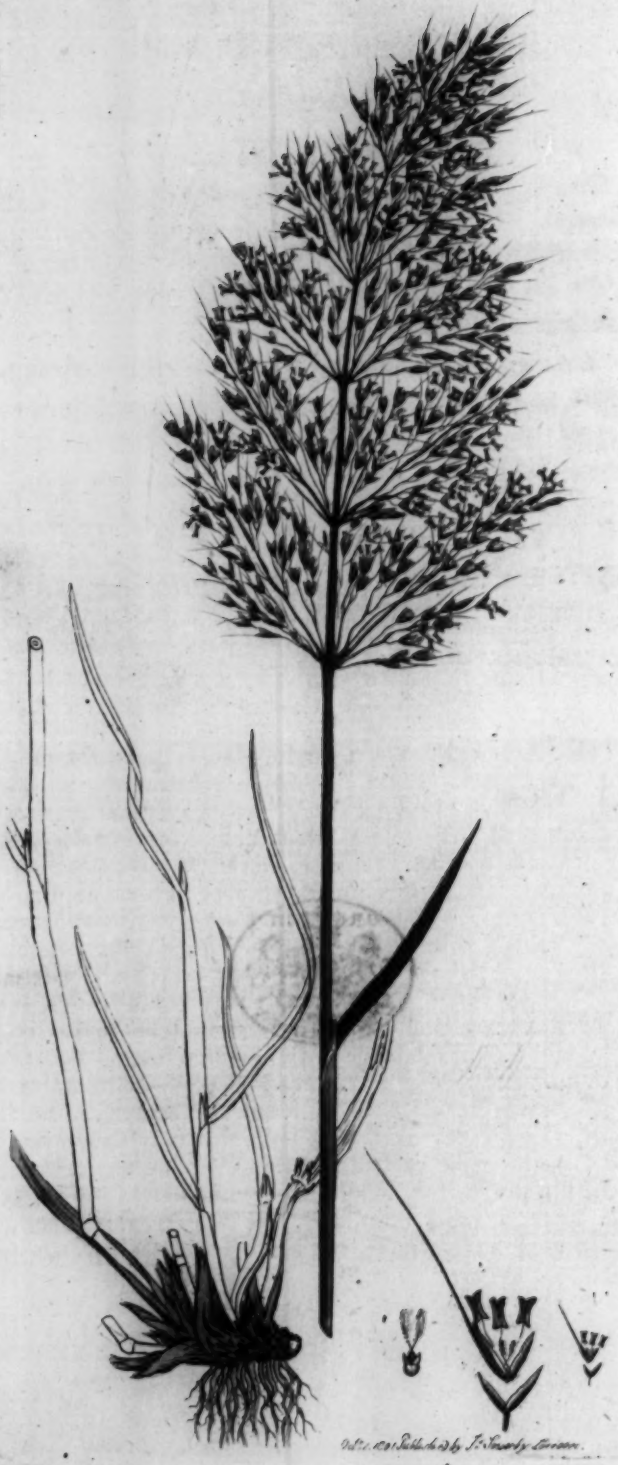
Spec. Char. [illegible] with a straight
[illegible] below the
[illegible]

Syn. [illegible] *Fl. Sv.* [illegible] *Sm. Fl.*
Ross. [illegible] 126. *Huds.* 33.
Relh. 26.

Gramen [illegible] aristatum panicem
et pallidius [illegible]

GATHERED by Mr. Goodenough last between Kennington and Camberwell. A hardy perennial grass, but is rarely to be found in flower, unless [illegible] are occasionally inundated, here in a [illegible] pasture, flowering in the winter, better in a [illegible] situation.

Root annual, [illegible] of numerous [illegible] fibres, peculiarly thick at their origin. [illegible] high, hairy, smooth, furnished with [illegible] at their base. Leaves often a little downy above, [illegible] Lowermost Sheaths jagged. *Panicle* [illegible] in length, the numerous branches [illegible] alternate, erect, one above the other, [illegible] angular and rough. Flowers extremely numerous, [illegible] purplish or pale purple. Those of the [illegible] rough at the base, about equal in length, though not [illegible] Outer *Calyx* pod-shaped, rough on the keel [illegible] below the summit [illegible] the awn [illegible] *Corolla* [illegible] tender, pointed and [illegible] base.



Publish'd by J. Sowerby London.

AGROSTIS Spica venti.

Silky Bent-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 acute valves, ſingle-flowered. *Cor.* of 2 unequal valves, larger than the calyx. *Stigmas* feathery.

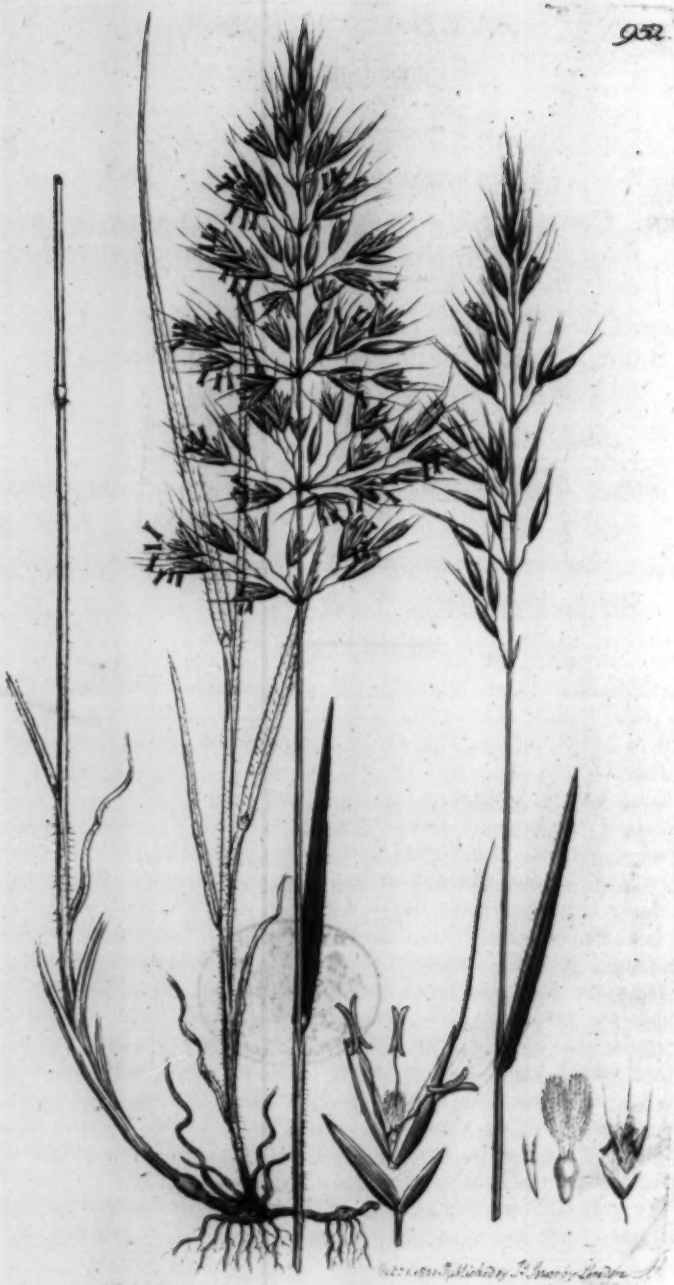
SPEC. CHAR. Exterior petal furniſhed with a ſtraight ſtiff and very long awn, inſerted below the ſummit. Panicle ſpreading.

SYN. Agroſtis Spica venti. *Linn. Sp. Pl.* 91. *Sm. Fl. Brit.* 77. *Hudſ.* 30. *With.* 126. *Hull.* 18. *Relh.* 26. *Abbot.* 14.

Gramen miliaceum majus, glumis ariſtatis, ſpadiceis et pallidis. *Raii Syn.* 405.

GATHERED by Mr. Groult in July laſt between Kennington and Camberwell. It is by no means a common graſs, but is chiefly to be looked for in ſandy corn-fields that are occaſionally inundated, where its ample ſhining panicles, elegantly waving in the wind, betray it at a conſiderable diſtance.

Root annual, formed of numerous crooked fibres, peculiarly thick at their origin. Stems ſeveral, 2 or 3 feet high, leafy, ſmooth, furniſhed with 1 or 2 joints near their baſe. Leaves often a little downy above, rough to the touch beneath. Stipula jagged. Panicle varying from 3 inches to a foot in length, the numerous branches cluſtered in ſeveral alternate ſeries one above the other, their ſubdiviſions angular and rough. Flowers extremely numerous, ſmall. Glumes greeniſh-white or purpliſh. Thoſe of the calyx acute, rough on the keel, unequal in length, though leſs ſo than in ſome graſſes. Outer petal notched, rough on the keel and margin, bearing on its back, below the ſummit, a very long ſtraight rough awn, which, as far as we know, is never wanting. The inner petal is ſmooth, tender, pointed and awnleſs, but has a few fine hairs at its baſe.



AVENA flaveſcens.

Yellow Oat-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing ſeveral florets. Outer valve of the *corolla* bearing a twiſted awn on its back.

SPEC. CHAR. Panicle much branched, looſe. Calyx unequal, containing about three florets. Receptacle hairy. Leaves flat, a little downy.

SYN. Avena flaveſcens. *Linn. Sp. Pl.* 118. *Sm. Fl. Brit.* 142. *Hudſ.* 53. *With.* 165. *Hull.* 26. *Relh.* 51. *Sibth.* 49. *Abbot.* 25. *Curt. Lond. faſc.* 3. *t.* 5.

Gramen avenaceum pratenſe elatius, paniculâ flaveſcente, locuſtis parvis. *Raii Syn.* 407.

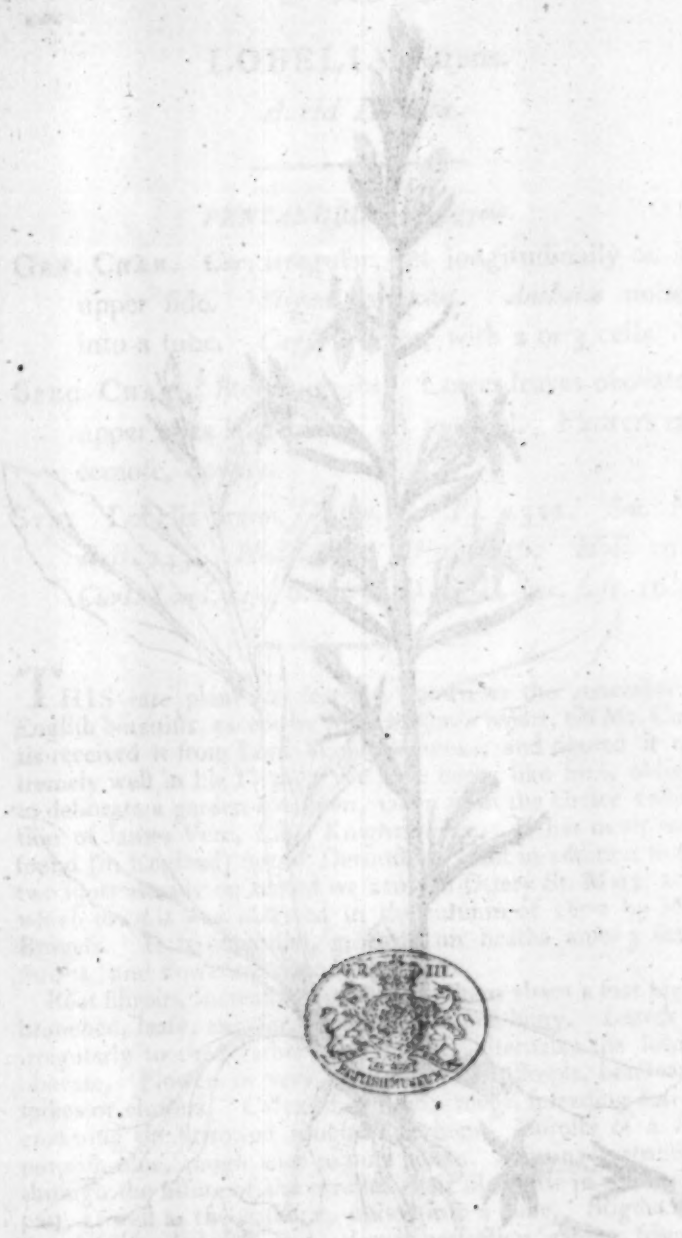
COMMON in chalky or limeſtone countries; ſometimes on dry ſandy ſoils, where the ſhining yellow of the panicle is ſeen in its greateſt perfection. It is a perennial graſs, flowering in July.

Root creeping, eſpecially when luxuriant. Stems erect, curved at the bottom, ſlender, about a foot high, leafy, with about 3 joints. Leaves narrow, taper-pointed, more or leſs downy, eſpecially their ſheaths; and the joints of the ſtem are often furniſhed underneath with a circle of deflexed hairs. Stipula briſtly, ſhort. Panicle ſpreading, many-flowered, ſometimes a little drooping; its branches capillary, rough, zigzag; its ultimate ſubdiviſions alternate. Spikelets ſmall, ſpreading, ſhining with yellow and a pale tinge of red, compoſed of 2 or 3, rarely 4, florets. Calyx-valves acute, with a rough keel; one of them twice as large as the other, and having a pair of lateral nerves. Outer petal much like the larger valve of the calyx, but bearing below its ſummit a longiſh rough awn, twiſted when dry. Common receptacle of the florets briſtly.

We can confirm Mr. Curtis's opinion of the value of this graſs, as being highly agreeable to cattle, and forming a great ſhare of the beſt upland paſturage in open dry countries.

AVENA flavescens.

Yellow Oat-grass.



Nov.r 1. 1801. Published by Jas. Sowerby, London.

LOBELIA urens.

Acrid Lobelia.

PENTANDRIA Monogynia.

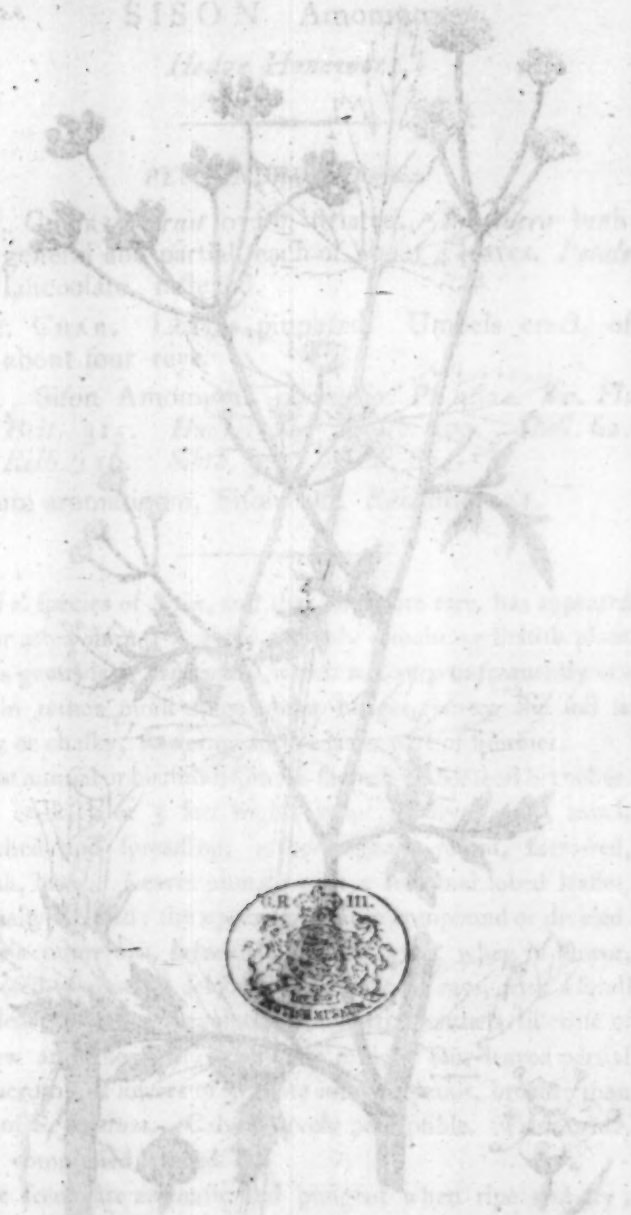
GEN. CHAR. *Cor.* irregular, ſlit longitudinally on its upper ſide. *Stigma* capitate. *Antheræ* united into a tube. *Capſ.* inferior, with 2 or 3 cells.

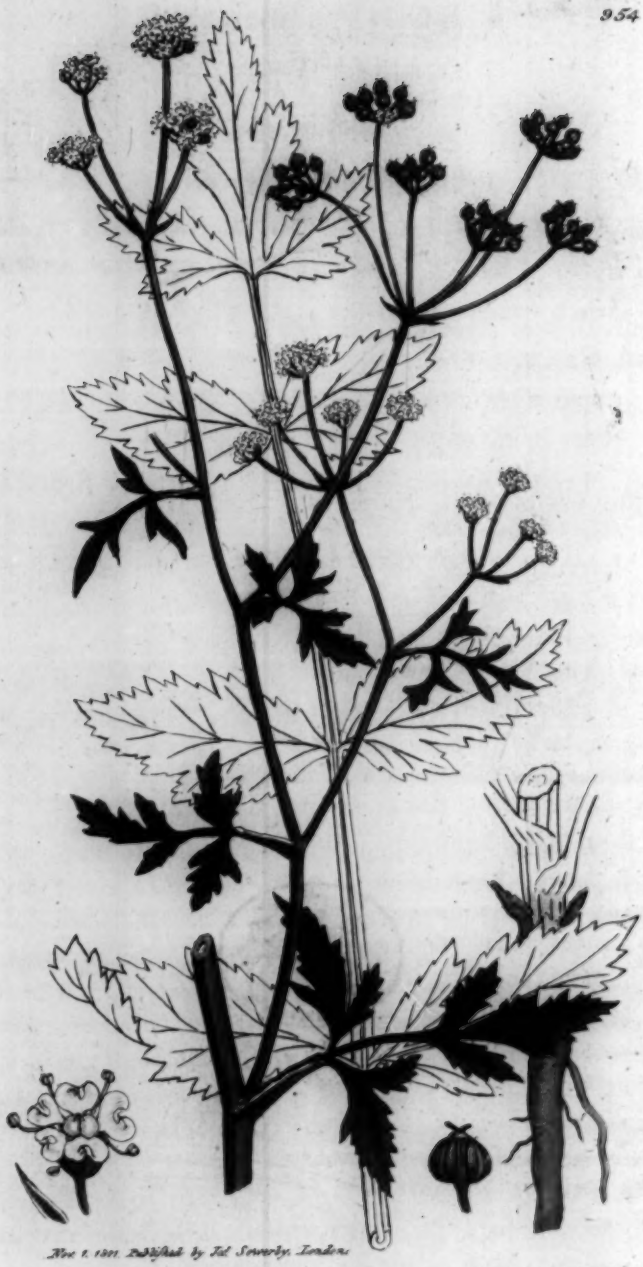
SPEC. CHAR. Stem upright. Lower leaves obovate; upper ones lanceolate; all toothed. Flowers racemoſe, downy.

SYN. Lobelia urens. *Linn. Sp. Pl.* 1321. *Sm. Fl. Brit.* 243. *Hudſ.* 378. *With.* 246. *Hull.* 191. *Curt. Lond. faſc.* 6. *t.* 63. *Dickſ. H. Sicc. faſc.* 16. 9.

THIS rare plant was ſcarcely known to the generality of Engliſh botaniſts, except by Mr. Hudſon's report, till Mr. Curtis received it from Lord Webb Seymour, and figured it extremely well in his Flora. We have been, like him, obliged to delineate a garden ſpecimen, taken from the choice collection of James Vere, Eſq., Knightſbridge. It has never been found (in England) out of Devonſhire; but in addition to the two ſpots already on record we can add Ottery St. Mary, near which town it was obſerved in the autumn of 1800 by Miſs Burgeſs. It is perennial, growing on heaths among ſmall ſhrubs, and flowering about September.

Root fibrous, increaſing by offsets. Stem about a foot high, branched, leafy, angular, roughiſh, but not hairy. Leaves all irregularly toothed rather than ſerrate, alternate, the loweſt obovate. Flowers in very long, terminal, ſimple, bracteated ſpikes or cluſters. Calyx of 5 linear rough ſpreading leaves, crowning the furrowed roughiſh germen. Corolla of a full purpliſh blue, rough with minute points. Stamina protruding through the fiſſure of the corolla, their filaments in the upper part, as well as the antheræ, united into a tube. Stigma deflexed, its head cloven, and, when in perfection, gaping, fringed beneath with ſhort hairs. Capſule 2-celled. Seeds numerous, ſmall. Herb milky, fœtid and very acrid.





Nov 1. 1811. Published by Jas. Sowerby, London.

SISON Amomum.

Hedge Honewort.

PENTANDRIA. Digynia.

GEN. CHAR. *Fruit* ovate, ſtriated. *Involucra* both general and partial, each of about 4 leaves. *Petals* lanceolate, inflexed.

SPEC. CHAR. Leaves pinnated. Umbels erect, of about four rays.

SYN. Siſon Amomum. *Linn. Sp. Pl.* 362. *Sm. Fl. Brit.* 315. *Hudſ.* 119. *With.* 300. *Hull.* 62. *Relh.* 116. *Sibth.* 97. *Abbot.* 63.

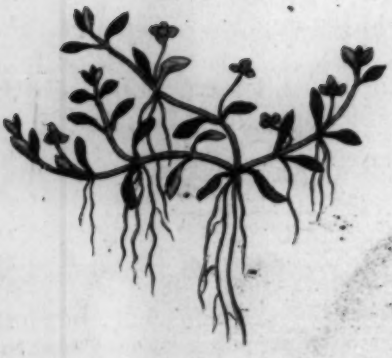
Sium aromaticum, Siſon Off. *Raii Syn.* 211.

ONE ſpecies of *Siſon*, and that the more rare, has appeared in our 4th volume, *t.* 228; the only remaining Britiſh plant of this genus is *S. Amomum*, which not very unfrequently occurs in rather moiſt ſpots under hedges, where the ſoil is marly or chalky, flowering in the latter part of ſummer.

Root annual or biennial, ſpindle-ſhaped, with lateral branches. Stem erect, 2 or 3 feet high (except in dry places), much branched and ſpreading, rather zigzag, round, furrowed, ſmooth, leafy. Leaves pinnate with a terminal lobed leaflet, unequally ſerrated; the upper ones more compound or divided. Umbels numerous, terminal, ſolitary, erect when in flower, compoſed of about 4, ſeldom more, unequal rays, with a ſmall four-leaved general involucrum. Partial umbels likewiſe of but few and unequal rays, with a minute four-leaved partial involucrum. Flowers of 5 white inflexed petals, broader than thoſe of *S. ſegetum*. Calyx ſcarcely perceptible. Fruit ovate, ſhort, compreſſed, ribbed.

The ſeeds are aromatic and pungent when ripe and dry; but in an early ſtate they, like the whole herb, have a peculiarly nauſeous ſmell.

G.R. III.
BRITISH MUSEUM



Dec.1. 1801. Published by Jas Sowerby, London

ELATINE Hydropiper.

Small Waterwort.

OCTANDRIA Tetragynia.

GEN. CHAR. *Cal.* of 3 or 4 leaves. *Petals* 3 or 4. *Capſ.* ſuperior, of 3 or 4 cells and as many valves; the partitions oppoſite to the fiſſures. *Seeds* many.

SPEC. CHAR. Leaves in pairs.

SYN. Elatine Hydropiper. *Linn. Sp. Pl.* 527. *Fl. Dan. t.* 156.

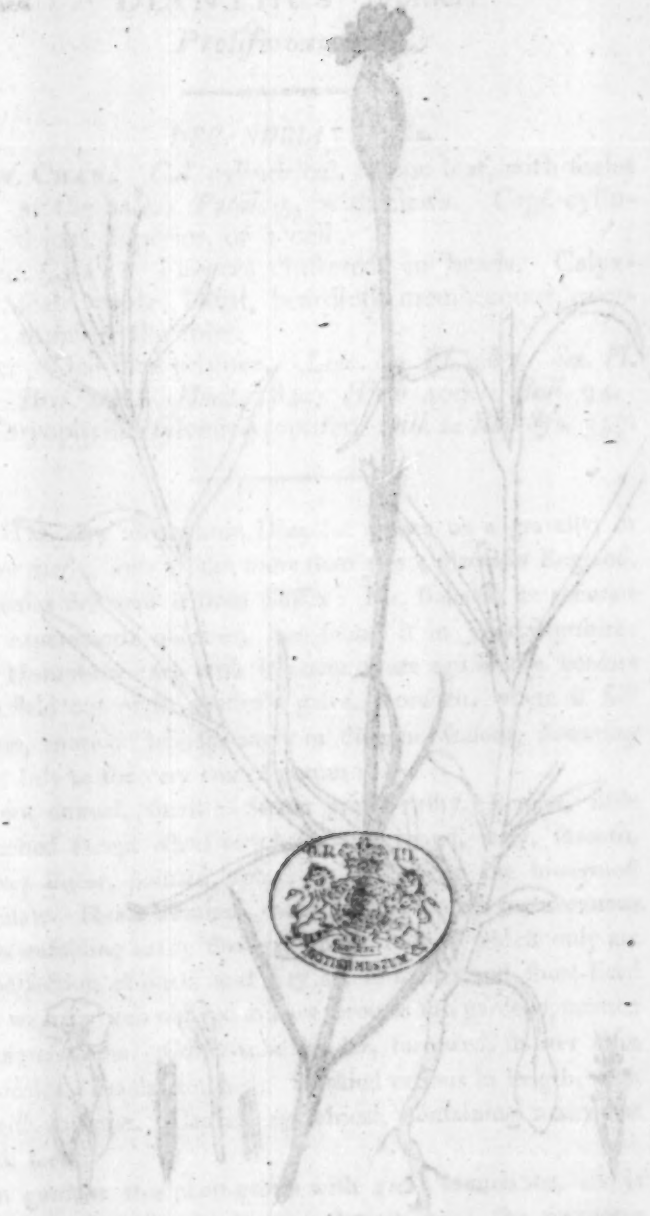
Alſinaſtrum ſerpyllifolium, flore roſeo tripetalo, et flore albo tetrapetalo. *Vaill. Par.* 5. *t.* 2. *f.* 1, 2.

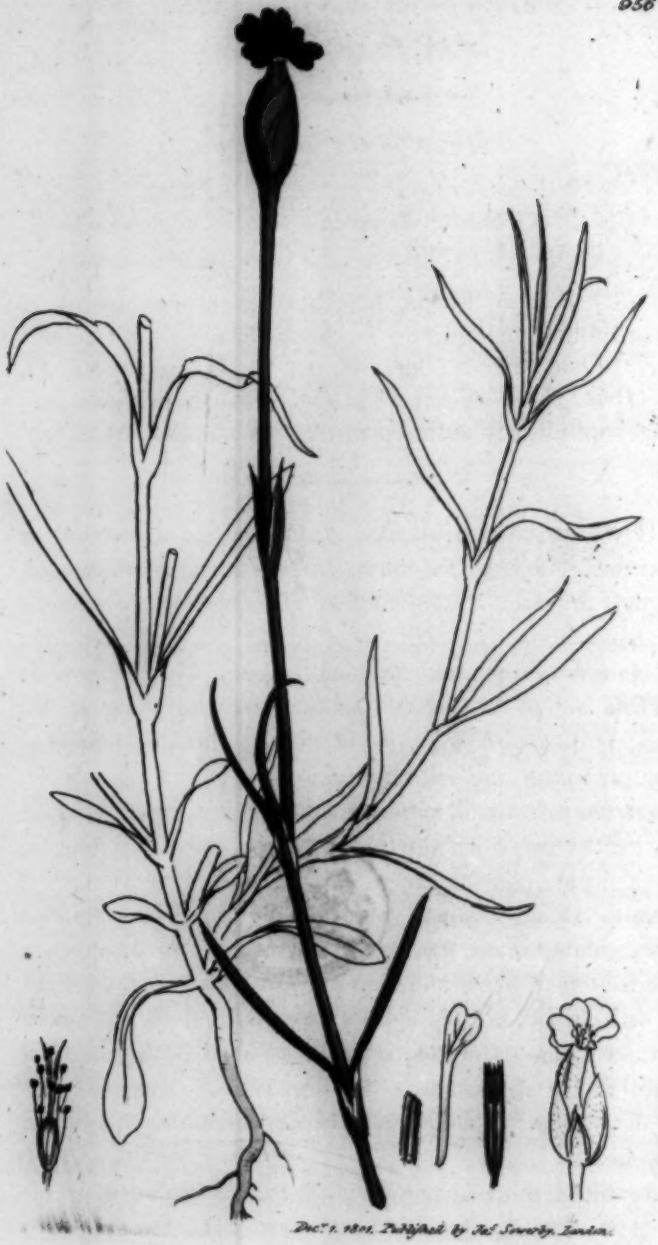
Hydropiper. *Buxb. Cent.* 2. 36. *t.* 37. *f.* 3.

NEVER obſerved in Britain, till the Rev. Mr. Williams found it, flowering in Auguſt 1798, about the eaſtern ſhore of Bomere pool near Condover, Shropſhire, in a looſe ſandy ſoil. This acquiſition is more peculiarly welcome to the Britiſh Flora, as the other ſpecies of *Elatine* muſt be eraſed from our catalogue; Dillenius's original ſpecimen proving (ſtrange to tell!) no other than *Centunculus minimus*, a plant quite unlike the *Elatine Alſinaſtrum*.

Root annual, fibrous, white. Herb ſmooth in every part, generally under water, even the flowers, which remain cloſed to ſhelter the ſtamina from wet. Sometimes however it grows about the margin of the pool, entirely out of the water. In the latter caſe it appears from Vaillant that the petals are reddiſh; in the former white: for both his deſcriptions moſt aſſuredly belong to one ſpecies, whoſe flowers when luxuriant (Vaill. *fig.* 2.) have four calyx-leaves, 4 petals, 8 ſtamina, 4 cloven ſtyles, and a four-cleft capſule; as we have found ſome on our ſpecimens; though moſt of ours have 3 calyx-leaves, 3 petals, 6 ſtamina, 3 ſtyles, and 3 valves to the capſule, as in Vaillant's *fig.* 1.

This plant might be overlooked for *Montia fontana*, though very different when examined. The ſtems are procumbent, throwing out roots. Leaves oppoſite, ſpatulate, entire. Flowers ſolitary, on axillary ſtalks. Buxbaum called it *Hydropiper* (Water Pepper) becauſe he erroneouſly fancied it allied to the *Pilularia*, whoſe fruit looks like pepper, ſee *t.* 521.





Dec.ʳ 1. 1811. Published by Jas. Sowerby, London.

DIANTHUS prolifer.

Proliferous Pink.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* cylindrical, of one leaf, with ſcales at the baſe. *Petals* 5, with claws. *Capſ.* cylindrical, ſuperior, of 1 cell.

SPEC. CHAR. Flowers cluſtered, in heads. Calyx-ſcales ovate, blunt, beardleſs, membranous, overtopping the tube.

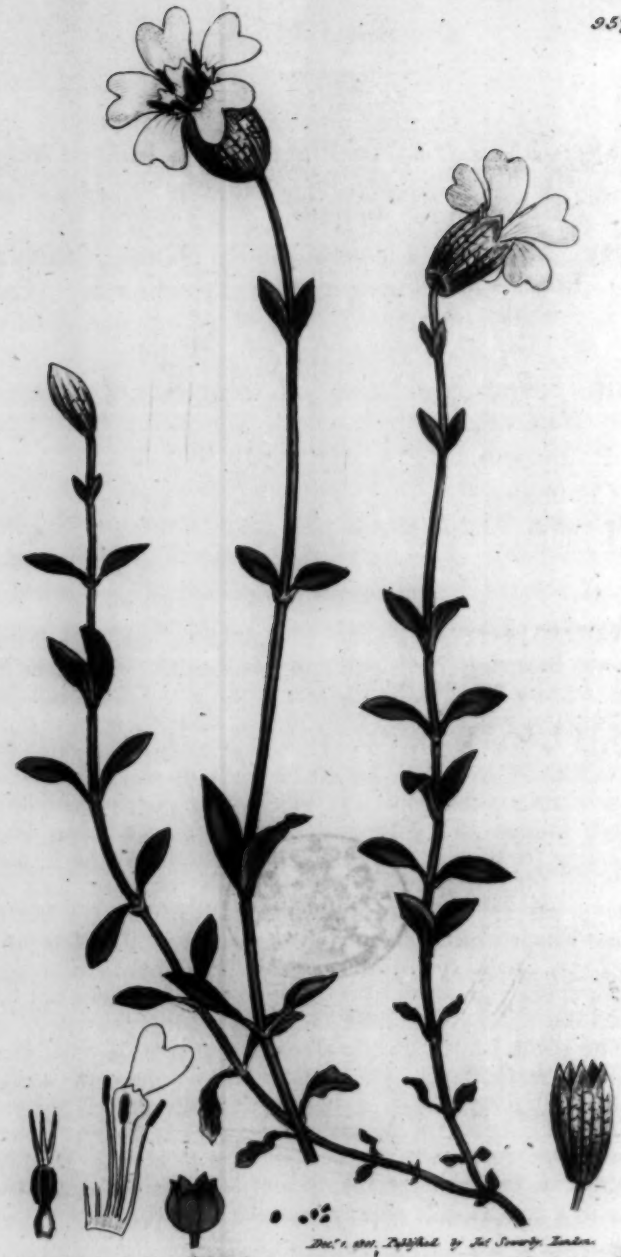
SYN. Dianthus prolifer. *Linn. Sp. Pl.* 587. *Sm. Fl. Brit.* 461. *Hudſ.* 184. *With.* 409. *Hull.* 94. Caryophyllus ſylveſtris prolifer. *Dill. in Raii Syn.* 337.

THIS very uncommon *Dianthus* grows on a gravelly, or rather marly, ſoil, in not more than 3 or 4 places in England. Dillenius firſt had it from Suſſex: Mr. Ballard, an accurate and experienced obſerver, has found it in Worceſterſhire: Mr. Humphrey met with it many years ago in the borders of a field out of St. Auſtin's gates, Norwich, where it ſtill occurs, more or leſs ſparingly in different ſeaſons, flowering from July to the very end of autumn.

Root annual, ſmall. Stems erect, ruſhy, ſlender, little branched except when very luxuriant, round, leafy, ſmooth. Leaves linear, pointed, rough on the edge; the lowermoſt ſpatulate. Heads terminal, ovate, the dry brown membranous ſcales enfolding many flowers, one or two of which only are in perfection at once, and they are ſo tender and ſhort-lived that we have been obliged to have recourſe to a garden ſpecimen to expreſs them. Calyx-tube ſlender, furrowed, ſhorter than the ſcales. Petals notched. Stamina various in length, with blueiſh antheræ. Capſule cylindrical, containing many flat black ſeeds.

In gardens this plant grows with great luxuriance, and is not unornamental, though the flowers want the fragrance which many pinks poſſeſs.

R. R. III.



Dec.r 1. 1807. Published by Sol Swarty London.

SILENE maritima.

Sea Campion.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling, of one leaf. *Petals* 5, with claws. *Capſ.* ſuperior, imperfectly 3-celled, burſting at the ſummit. *Seeds* many.

SPEC. CHAR. Flowers moſtly ſolitary, terminal. Petals cloven, crowned at the mouth. Calyx ſmooth, reticulated with veins. Stems proſtrate at the baſe.

SYN. Silene maritima. *With.* 414. *Sm. Fl. Brit.* 468. *Hull.* 98.

S. amœna. *Hudſ.* 188. *Lightf.* 227.

Cucubalus Behen β. *Linn. Sp. Pl.* 591.

Lychnis maritima repens. *Raii Syn.* 337.

ABUNDANT on the ſea ſhore both in ſandy and rocky places, flowering in Auguſt and September. Our ſpecimen was ſent by Mr. W. Borrer from Suſſex. Like ſome other maritime plants it is alſo truly alpine, flouriſhing in the ſtony beds of mountain torrents. Having cultivated it ſeveral years in various ſoils, and propagated it by ſeed, we can now ſpeak to its certainty as a ſpecies; indeed few plants vary leſs in habit, though in the number of its ſtyles, and their correſponding fruit-cells, it varies (unfortunately for the Linnæan artificial ſyſtem) from 3, the prevailing number, to 4 or 5. The petals are conſtantly crowned at their baſe; a circumſtance which ſometimes, though rarely, occurs in *Silene inflata Fl. Brit.*, figured under the Linnæan name of *Cucubalus Behen* in our *t.* 164; and which proving in ſome other caſes not to be relied on, we have now ſet aſide as a generic character.

The plant before us has a creeping perennial root, many proſtrate leafy ſtems, whoſe extremities only grow upright, and which terminate in a handſome white flower, generally ſolitary, ſometimes accompanied by 1 or 2 more; but the ſtem never bears ſo many flowers as in *S. inflata*, neither is the capſule ſo long as in that ſpecies. In the leaves and calyx there is a conſiderable affinity between the two.

SILENE maritima.

Sea Campion.

Gen. Char. Cal. fwelling, of one leaf. Petals 5, with claws. Caps. fuperior, imperfectly 3-celled, burfting at the fummit. Seeds many.

Spec. Char. Flowers moftly foliitary, terminal. Petals cloven, crowned at the mouth. Calyx fmooth, reticulated with veins. Stems procumbent at the bafe.

Syn. Silene maritima. With. 414. Sm. Fl. Brit. 458. Hull. 98.

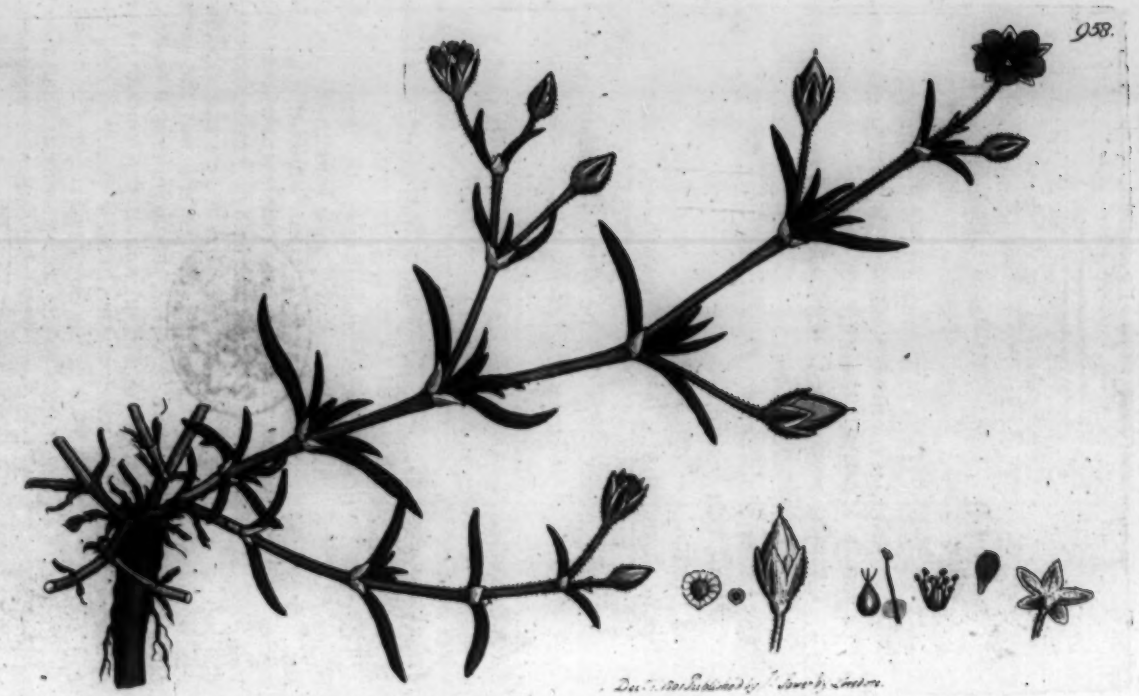
S. arenaria. Huds. 183. Lightf. 227.

Cucubalus Beffon B. Linn. Sp. Pl. 591.

Lychnis maritima repens. Raii Syn. 337.

A RUNDANT on the fea fhore both in fandy and rocky places, flowering in Auguft and September. Our Specimen was fent by Mr. W. Borrer from Suffex. Like fome other maritime plants it is alſo truly alpine, fhrinking in the ftony beds of mountain torrents. Having cultivated it feveral years in various foils, and propagated it by feed, we can now look to its certainty as a fpecies; moſt few plants vary leſs in habit, though in the number of its ſtyles, and their correſponding fruit-cells, it varies ſingularly; for the Linnæan artificial fyſtem) from its preſiding number, to 4 or 5. The petals are conſtantly crowned at their bafe; a circumſtance which ſometimes, though rarely, occurs in Silene inflata Fl. Brit. figured under the Linnæan name of Cucubalus Behen in our t. 164; and which proving in ſome other caſes not to be relied on, we have now let aſide as a generic character.

The plant before us has a creeping perennial root, many procumbent leafy ſcions, whole extremities only grow upright, and which terminate in a handſome white flower, generally ſolitary, ſometimes accompanied by 1 or 2 more; but the plant never bears ſo many flowers as in S. inflata, neither is the capſule ſo long as in that ſpecies. In the leaves and calyx there is a conſiderable affinity between the two.



ARENARIA marina.

Sea Spurrey-Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, ſpreading. *Petals* 5, undivided. *Capſule* ſuperior, of 1 cell, with many ſeeds.

SPEC. CHAR. Leaves ſemicylindrical, fleſhy, awnleſs. Stipulæ membranous, ſheathing. Seeds compreſſed, bordered, ſmooth.

SYN. Arenaria marina. *Fl. Dan. t.* 740. *Sm. Fl. Brit.* 480. *Hull.* 95.

A. rubra β. *Linn. Sp. Pl.* 606. *Lightf.* 230. *Hudſ.* 193, (media).

A. media. *With.* 422.

Spergula maritima, flore parvo cæruleo, ſemine vario. *Dill. in Raii Syn.* 351.

β. Arenaria media. *Sp. Pl.* 606, the ſynonyms wrong.

A. marina. *With.* 422. *Relh.* 172.

A. rubra γ, (marina). *Hudſ.* 193.

Alſine Spergulæ facie media. *Raii Syn.* 351.

COMMON on moſt parts of the Britiſh coaſt, flowering from June to Auguſt.

The root is ſpindle-ſhaped and ſtrong, though annual. Stems proſtrate, ſpreading circularly, quite ſmooth, except at the ſummit, as in *A. rubra*, *t.* 852, with which this ſpecies agrees in moſt reſpects, but eſſentially differs from it in the following characters. The leaves are fleſhy, ſemicylindrical, deſtitute of a briſtle at their points: the flowers and capſules are conſiderably larger, eſpecially the latter: but the ſeeds more peculiarly diſtinguiſh *A. marina*, being (inſtead of wedge-ſhaped with a rough external edge) round, flat, ſmooth, and encircled by a membranous border, which varies in breadth and colour, (even in ſeeds of the ſame capſule, as Dr. Stokes well obſerves,) being either white and elegantly ſtriated, or browniſh and leſs conſpicuous. The latter ſtate we are inclined to think merely an imperfection in growth or ripeneſs, and therefore the two varieties marked above, with their ſynonyms, might perhaps ſafely be reduced to one.

ARENARIA - marina.

Sea-Sparrey-Sandwort.

DECANDRIA Trigynia.

Gen. Char. Cal. 5-leaved, spreading. Petals 5, undivided. Capsule superior, of 1 cell, with many seeds.

Spec. Char. Leaves semicylindrical, fleshy, awnless. Stipules membranous, divaricating. Seeds compressed, bordered, smooth.

Syn. Arenaria marina. Fl. Dan. t. 710. Sm. Fl. Brit. 480. Hull. 95.

A. rubra β. Linn. Sp. Pl. 606. Lightf. 230. Huds. 193. (media).

A. media. With. 422.

Spergula maritima, flore parvo caeruleo, semine vario.

Dill. in Ray Syn. 331.

β. Arenaria media. Sp. Pl. 606. the synonyms wrong.

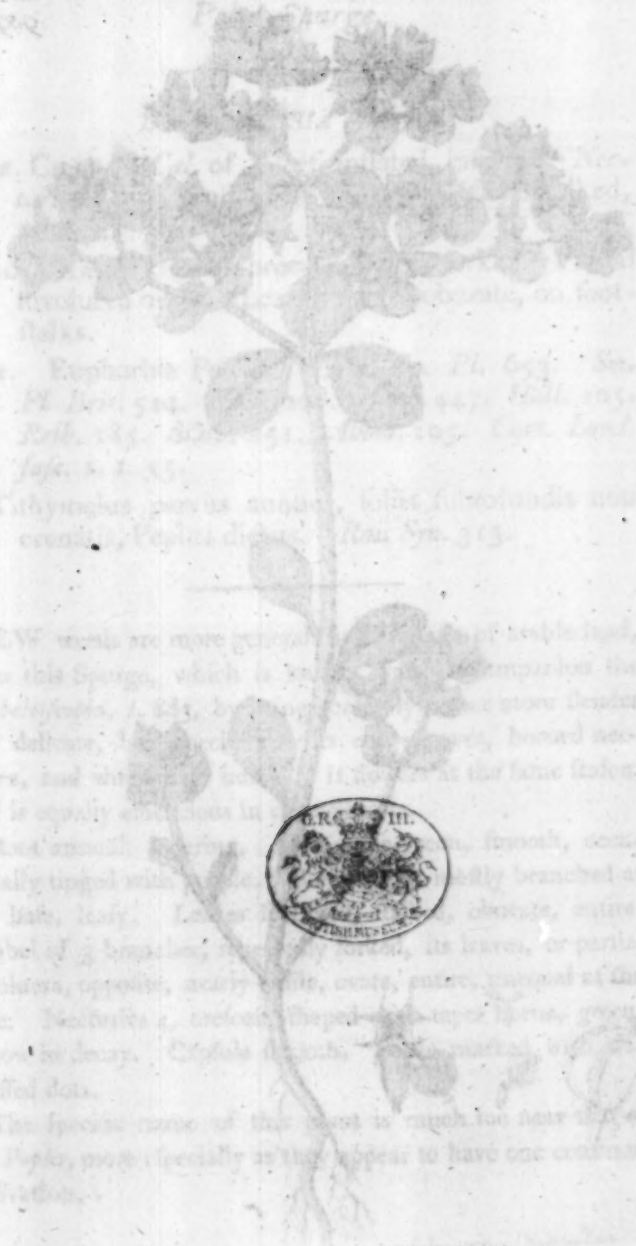
A. marina. With. 422. Relh. 172.

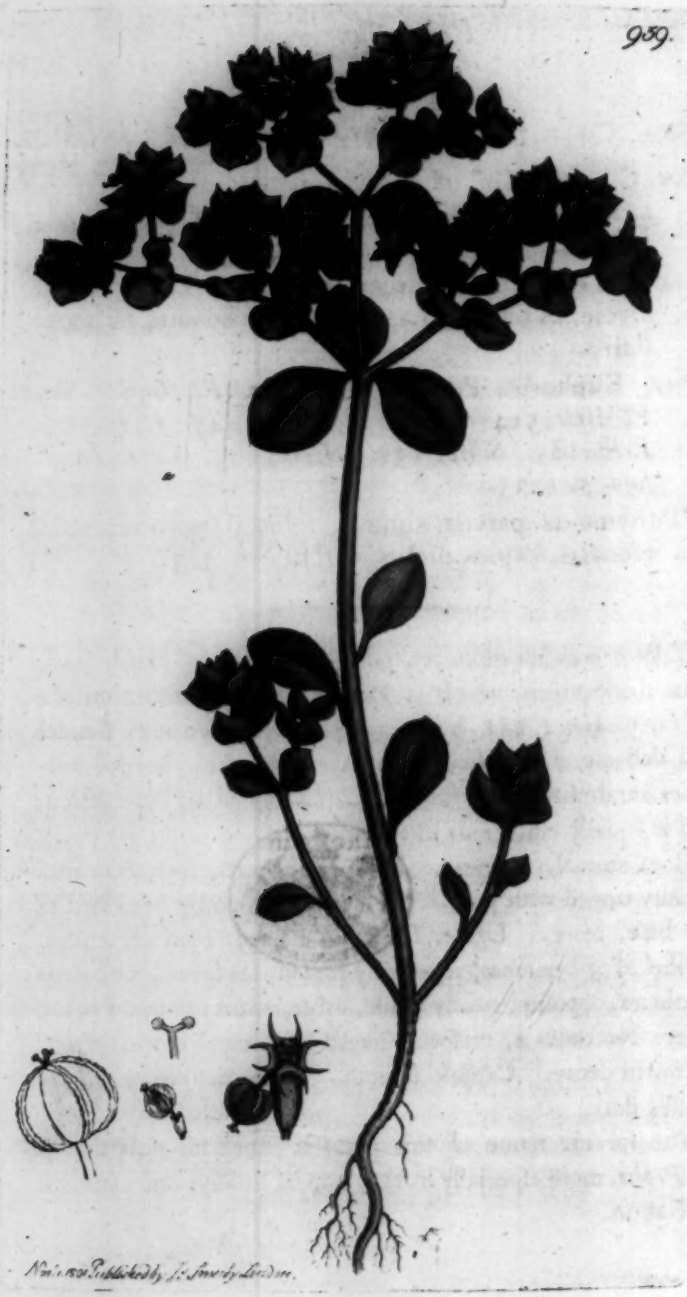
A. rubra γ. (marina). Huds. 193.

Alline Spergulae facie media. Roy Syn. 351.

COMMON on most parts of the British coast, flowering from June to August.

The root is spindle-shaped and strong, though annual. Stems prostrate, spreading circularly, quite smooth, except at the summit, as in A. rubra, with which this species agrees in most respects, but essentially differs from it in the following characters. The leaves are fleshy, semicylindrical, definite or a little at their points: the flowers and capsules are considerably larger, especially the latter: but the seeds more peculiarly distinguish A. marina, being (instead of wedge-shaped with a rough external edge) round, flat, smooth, and encircled by a membranous border, which varies in breadth and colour, (even in seeds of the same capsule, as Dr. Stokes well observes,) being either white and elegantly fluted, or brownish and seemingly conspicuous. The latter state we are inclined to think merely an imperfection in growth or ripeness, and therefore the two varieties marked above, with their synonyms, might perhaps safely be reduced to one.


G.R. III.



Nov. 1. 1801. Published by J. Sowerby, London.

EUPHORBIA Peplus.

Petty Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of 1 leaf, inflated, inferior. *Nectaries* 4 or 5, ſtanding on the calyx. *Capſ.* ſtalked, 3-lobed.

SPEC. CHAR. Umbel three-branched, forked. Partial involucra ovate. Leaves entire, obovate, on foot-ſtalks.

SYN. Euphorbia Peplus. *Linn. Sp. Pl.* 653. *Sm. Fl. Brit.* 514. *Hudſ.* 208. *With.* 447. *Hull.* 105. *Relh.* 185. *Sibth.* 151. *Abbot.* 105. *Curt. Lond. faſc.* 1. *t.* 35.

Tithymalus parvus annuus, foliis ſubrotundis non crenatis, Peplus dictus. *Raii Syn.* 313.

FEW weeds are more general, in all kinds of arable land, than this Spurge, which is known from its companion the *E. helioſcopia*, *t.* 883, by being generally rather more ſlender and delicate, but eſpecially by its entire leaves, horned nectaries, and three-cleft umbel. It flowers at the ſame ſeaſon, and is equally efficacious in curing warts.

Root annual, tapering. Herb graſs-green, ſmooth, occaſionally tinged with purple. Stem erect, moſtly branched at the baſe, leafy. Leaves ſcattered, ſtalked, obovate, entire. Umbel of 3 branches, repeatedly forked, its leaves, or partial involucra, oppoſite, nearly ſeſſile, ovate, entire, unequal at the baſe. Nectaries 4, creſcent-ſhaped with taper horns, green, yellow in decay. Capſule ſmooth. Seeds marked with depreſſed dots.

The ſpecific name of this plant is much too near that of *E. Peplis*, more eſpecially as they appear to have one common derivation.

EUPHORBIA Peplus.

Petty Spurge.

Gen. Char. Cal. of 1 leaf, inflated, inferior. Nectaries 4 or 5, standing on the calyx. Caps. 3-lobed.

Spec. Char. Umbel three-branched, forked. Partial involucra ovate. Leaves entire, obovate, on footstalks.

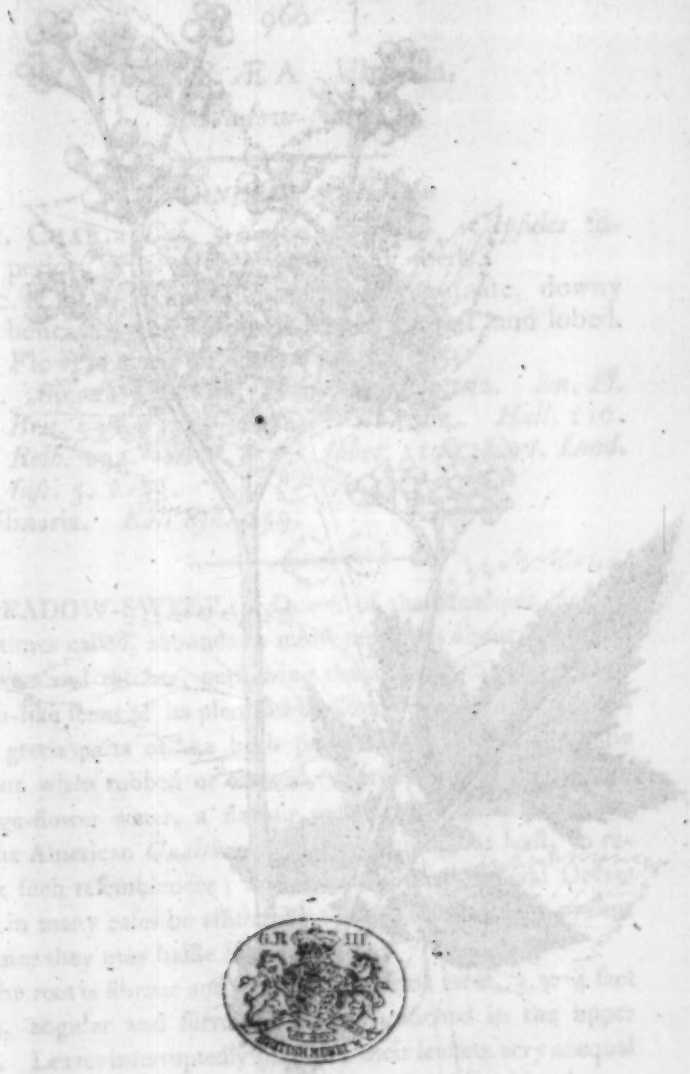
Syn. Euphorbia Peplus. Linn. Sp. Pl. 653. Sm. Fl. Brit. 514. Huds. Fl. Ang. 447. Hull. 105. Relh. 185. Sibth. 151. Abbot. 105. Curt. Lond. fasc. 1. t. 35.

Tithymalus parvus annuus, foliis rotundis non crenatis, Peplus dictus. Raii Syn. 313.

FEW weeds are more general, in all kinds of arable land, than this Spurge, which is known from its companion the E. helioscopia, t. 883, by being generally rather more tender and delicate, but especially by its entire leaves, horned nectaries, and three-cleft umbel. It flowers at the same season, and is equally efficacious in exciting warts.

Root annual, tapering, fibrous. Herb pale-green, smooth, occasionally tinged with purple. Stem erect, mostly branched at the base, leafy. Leaves scattered, stalked, obovate, entire. Umbel of 3 branches, repeatedly forked, its leaves, or partial involucra, opposite, nearly sessile, ovate, entire, unequal at the base. Nectaries 4, crescent-shaped with tapering horns, green, yellow in decay. Capsule smooth. Seeds marked with deep pitted dots.

The specific name of this plant is much too near that of E. Peplis, more especially as they appear to have one common derivation.


G.R. III.

Now 1 Nov Published by J. Sowerby

SPIRÆA Ulmaria.

Meadow-ſweet.

ICOSANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſules* ſuperior, of 2 valves, with many ſeeds.

SPEC. CHAR. Leaves interruptedly pinnate, downy beneath; the terminal leaflet largeſt and lobed. Flowers cymoſe, with many ſtyles.

SYN. Spiræa Ulmaria. *Linn. Sp. Pl.* 702. *Sm. Fl. Brit.* 536. *Hudſ.* 217. *With.* 464. *Hull.* 110. *Relh.* 192. *Sibth.* 157. *Abbot.* 110. *Curt. Lond. faſc.* 5. *t.* 33.

Ulmaria. *Raii Syn.* 259.

MEADOW-SWEET, or Queen of the Meadows, as it is ſometimes called, abounds in moiſt meadows about the banks of rivers and ditches, perfuming the air with the ſweet hawthorn-like ſcent of its plentiful bloſſoms from June to Auguſt. The green parts of the herb partake of a ſimilar aromatic flavour when rubbed or chewed, approaching to the taſte of orange-flower water, a flavour poſſeſſed in higher perfection by the American *Gualtheria*. It is amuſing, at leaſt, to remark ſuch reſemblances; and the ſtudent of Natural Orders may in many caſes be aſſiſted by them, though in the preſent inſtance they may baffle his ſkill.

The root is fibrous and perennial. Stems erect, 3 or 4 feet high, angular and furrowed, leafy, branched in the upper part. Leaves interruptedly pinnate; their leaflets very unequal in ſize, ſharply ſerrated, clothed beneath with white down; the terminal one remarkably large and three-lobed. A pair of rounded ſerrated ſtipulæ are joined to the common leaf-ſtalk, and claſp the ſtem. Flowers in a large very compound cyme, whoſe ſide branches riſe much above the central one. Stamina numerous. Styles 6 or 8, on which ſubject we have already enlarged in *vol.* 4. *p.* 284. Germens and capſules twiſted.

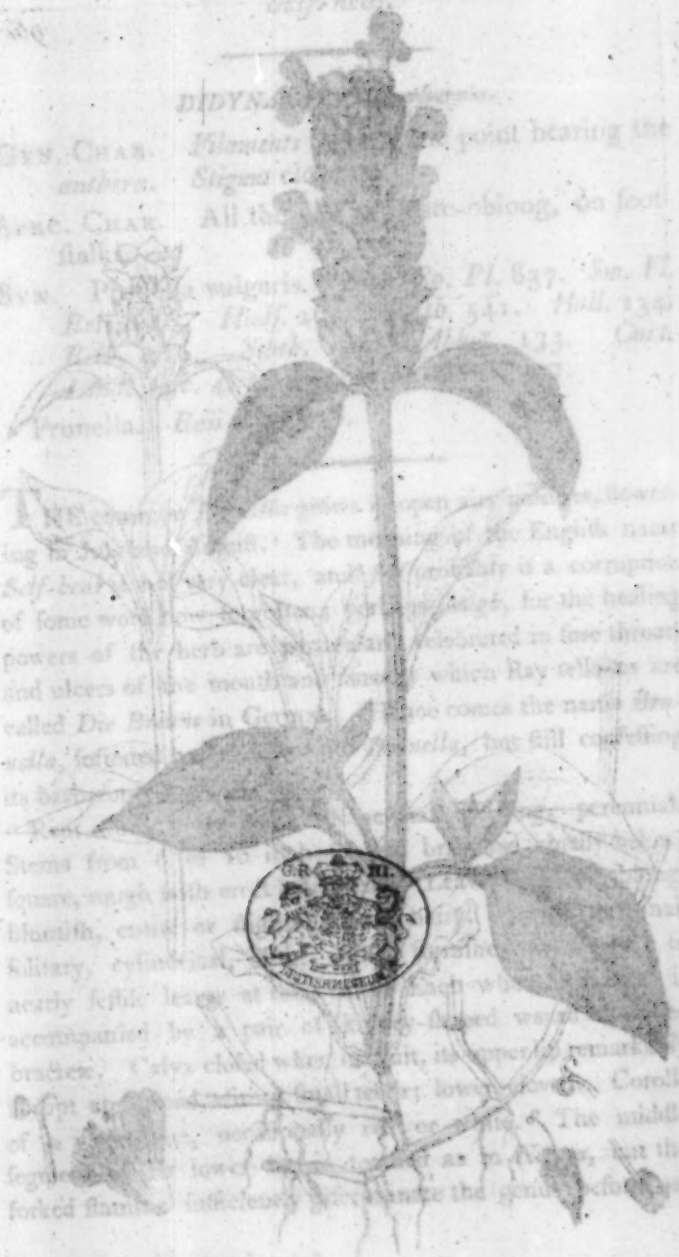
SPIRÆA Ulmaria.

Meadow-Sweet.

M EADOW-SWEET, or Queen of the Meadows, as it is sometimes called, abounds in moist meadows about the banks of rivers and ditches, perfuming the air with the lower branch-like scent of its plentiful bloffoms from June to Auguft. The green parts of the herb partake of a fimilar aromatic flavour when rubbed or chewed, approaching to the tafte of orange-flower water, a flavour poffeffed in higher perfection by the American Gaultheria. It is aftringent, as leaft, to remark fuch refemblance; and the ftudent of Natural Order may in many cafes be affifted by them, though in the preient inftance they may baffle his fkill.

The root is fibrous and perennial. Stems erect, 3 or 4 feet high, angular and furrowed, leafy, branched in the upper part. Leaves interruptedly pinnate; their leaflets very unequal in fize, fharply ferrated, clothed beneath with white down; the terminal one remarkably large and three-lobed. A pair of rounded ferrated ftipulæ are joined to the common leafftalk, and clafp the ftem. Flowers in a large very compound cyme, whofe fide branches rife much above the central one. Stamina numerous. Styles 6 or 8, on which fubject we have already enlarged in vol. i. p. 28. Germens and capfules twilled.

PRUNELLA vulgaris.



Dec. 1. 1820. Published by J. Sowerby, London.

PRUNELLA vulgaris.

Self-heal.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Filaments* forked, one point bearing the *anthera*. *Stigma* cloven.

SPEC. CHAR. All the leaves ovate-oblong, on foot-ſtalks.

SYN. Prunella vulgaris. *Linn. Sp. Pl.* 837. *Sm. Fl. Brit.* 646. *Hudſ.* 264. *With.* 541. *Hull.* 134. *Relh.* 236. *Sibth.* 190. *Abbot.* 133. *Curt. Lond. faſc.* 4. *t.* 42. *Mart. Ruſt. t.* 137.

Prunella. *Raii Syn.* 238.

THE common *Prunella* grows in open airy paſtures, flowering in July and Auguſt. The meaning of the Engliſh name *Self-heal* is not very clear, and *ſelf* probably is a corruption of ſome word now forgotten; perhaps *ſlough*, for the healing powers of the herb are particularly celebrated in ſore throats and ulcers of the mouth and fauces; which Ray tells us are called *Die Breune* in German. Hence comes the name *Brunella*, ſoftened by Linnæus into *Prunella*, but ſtill confeſſing its barbarous origin.

Root fibrous, or rather ſomewhat creeping, perennial. Stems from 6 to 10 inches high, branched chiefly below, ſquare, rough with erect hairs, leafy. Leaves ovate, or oblong, bluntiſh, entire or ſlightly waved, hairy. Spikes terminal, ſolitary, cylindrical, blunt, denſe, furniſhed with a pair of nearly ſeſſile leaves at their baſe. Each whorl of flowers is accompanied by a pair of kidney-ſhaped waved coloured bracteæ. Calyx cloſed when in fruit, its upper lip remarkably abrupt and broad, with 3 ſmall teeth; lower cloven. Corolla of a violet hue, occaſionally red or white. The middle ſegment of its lower lip is toothed as in *Nepeta*, but the forked ſtamina ſufficiently diſcriminate the genus before us.

PRUNELLA vulgaris.

Self-heal.

DIDYNAMIA Gymnospermia.

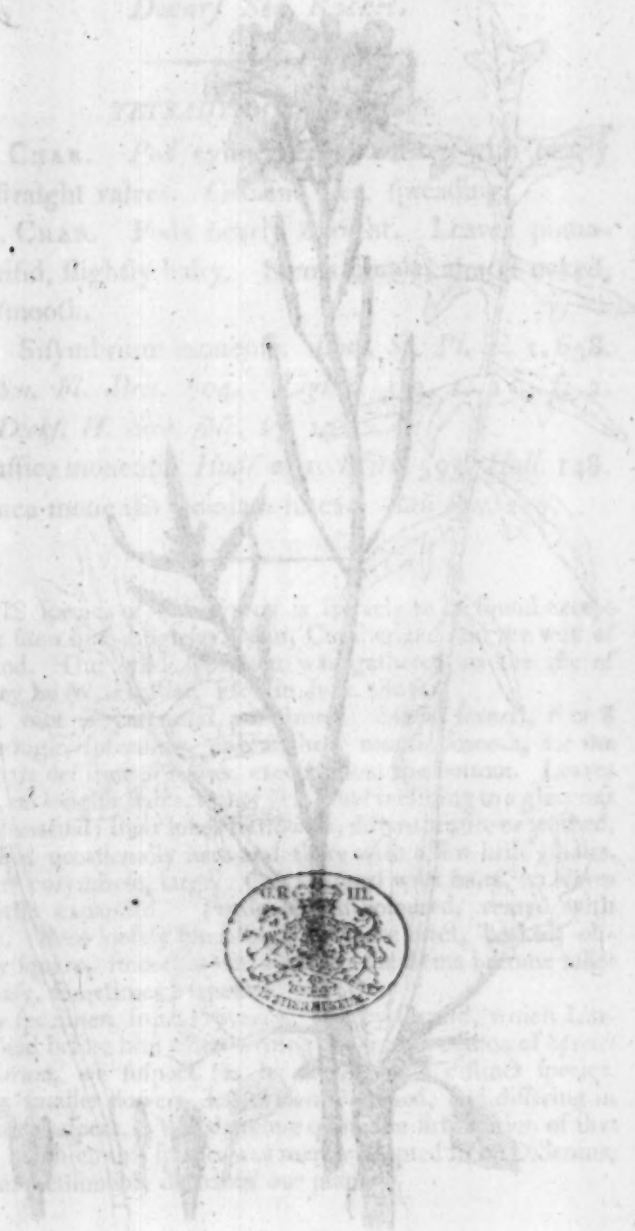
GEN. CHAR. Filaments forked, one point bearing the anthery. Stigma cloven.

SPEC. CHAR. All the leaves ovate-oblong, on foot-stalks.

SYN. Prunella vulgaris. Linn. Sp. Pl. 837. Sm. Fl. Brit. 646. Hull. 269. With. 542. Hall. 134. Rutb. 256. Sibth. 190. Hall. n. 135. Gerv. Lond. 396. t. 11. Mart. Rup. 237.
Prunella. Raii Syn. 329.

THE common Prunella grows in open airy pastures, flowering in July and August. The meaning of the English name Self-heal is not very clear, and is probably a corruption of some word now forgotten; perhaps Sanap, for the healing powers of the herb are particularly celebrated in sore throats and ulcers of the mouth and fauces, which Ray tells us are called Die Braune in Germany. Hence comes the name Brunella, softened by Linnæus into Prunella, but still confirming its barbarous origin.

Root fibrous, or rather somewhat creeping, perennial. Stems from 6 to 10 inches high, branched, chiefly below; square, rough with erect hairs, leafy. Leaves ovate, or oblong, blunttish, entire or slightly waved, hairy. Spikes terminal, solitary, cylindrical, blunt, dense, furnished with a pair of nearly sessile leaves at their base. Each whorl of flowers is accompanied by a pair of kidney-shaped waved coloured bractæ. Calyx closed when in fruit, its upper lip remarkably abrupt and broad, with 3 small teeth; lower cloven. Corolla of a violet hue, occasionally red or white. The middle segment of its lower lip is toothed as in Nepeta, but the forked stamina sufficiently determinate the genus before us.


G.R. III.

Drawn from nature by J. Sowerby London.

SISYMBRIUM monenſe.

Dwarf Sea Rocket.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* cylindrical, burſting with nearly ſtraight valves. *Cal.* and *Cor.* ſpreading.

SPEC. CHAR. Pods nearly upright. Leaves pinnatifid, ſlightly hairy. Stems ſimple, almoſt naked, ſmooth.

SYN. Siſymbrium monenſe. *Linn. Sp. Pl. ed.* 1. 658. *Sm. Fl. Brit.* 704. *Lightf.* 353. *t.* 15. *f.* 1. *Dickſ. H. Sicc. faſc.* 17. 13.

Braſſica monenſis. *Hudſ.* 291. *With.* 593. *Hull.* 148.

Eruca monenſis laciniata lutea. *Raii Syn.* 297.

THIS ſpecies of *Siſymbrium* is ſcarcely to be found except on the ſhores of Angleſea, Man, Cumberland and the weſt of Scotland. Our wild ſpecimen was gathered on the iſle of Walney by W. Huſtler, Eſq. in June 1801.

The root is perennial and ſtrong. Stems ſeveral, 6 or 8 inches high, ſpreading, unbranched, round, ſmooth, for the moſt part deſtitute of leaves, except about the bottom. Leaves many, on longiſh ſtalks, rather fleſhy and inclining to a glaucous hue, pinnatifid; their lobes narrowiſh, diſtant, entire or toothed, furniſhed occaſionally here and there with a few briſtly hairs. Flowers corymboſe, large. Calyx tipped with hairs, its leaves but little expanded. Petals lemon-coloured, veined with purple. Pods looſely ſpreading, not quite erect, beaked, obſcurely ſquare, ſmooth.—In a garden the ſtems become taller and leafy, ſometimes branched,

The ſpecimen from Provence, ſent by Gerard, which Linnæus had before him when writing the ſecond edition of *Species Plantarum*, we ſuſpect (as he did) to be a diſtinct ſpecies, having ſmaller flowers, leſs evidently veined, and differing in its general aſpect. We therefore quote the firſt edition of that work, in which this ſpecies was merely adopted from Dillenius, who unqueſtionably deſcribed our plant.

SISYMBRIUM monense.

Dwarf Sea Rocket.

TETRADYNAMIA Siliculosa.

Gen. Char. Pod cylindrical, bursting with nearly straight valves. Cal. and Cor. spreading.

Spec. Char. Pods nearly upright. Leaves pinnatifid, slightly hairy. Stems simple, almost naked, smooth.

Syn. Sisymbrium monense. Linn. Sp. Pl. ed. 1. 659.

Sm. Fl. Brit. 704. Lightf. 359. n. 15. t. 1.

Dryd. H. Stev. fasc. 17. 13.

Braffica monensis Huds. 292. With. 593. Hull 148.

Eruca monensis laciniata lutea. Ray Syn. 297.

THIS species of Sisymbrium is scarcely to be found except on the shores of Anglesea, Man, Cumberland and the west of Scotland. Our wild specimen was gathered on the isle of Walney by W. Hutchen, Esq. in June 1801.

The root is perennial and strong. Stems several, 6 or 8 inches high, spreading, subramified, round, smooth, for the most part destitute of leaves, except about the bottom. Leaves many, on longish stalks, rather fleshy and inclining to a glaucous line, pinnatifid; their lobes narrow-ish, diffant, entire or toothed, furnished occasionally here and there with a few bristly hairs. Flowers corymbofe, large. Calyx tinged with hairs, its leaves but little expanded. Petals lemon-coloured, veined with purple. Pods loofely spreading, not quite erect, beaked, obscurely quinary, smooth.—In a garden the stems become taller and leafy, sometimes branched.

The specimen from Provence, sent by Gerard, which Linnæus had before him when writing the second edition of Species Plantarum, we fuspect (as he did) to be a diffinct species, having smaller flowers, less evidently veined, and differing in its general aspect. We therefore quote the first edition of that work, in which this species was merely adopted from Dillenius, who unexceptionably described our plant.

Drawn as Published by J. Sowerby, London.

SISYMBRIUM Sophia.

Flix-weed.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* cylindrical, burſting with nearly ſtraight valves. *Cal.* and *Cor.* ſpreading.

SPEC. CHAR. Leaves doubly pinnate, a little hairy. Petals ſmaller than the calyx.

SYN. Siſymbrium Sophia. *Linn. Sp. Pl.* 920. *Sm. Fl. Brit.* 704. *Hudſ.* 297. *With.* 582. *Hull.* 150. *Relh.* 258. *Sibth.* 208. *Abbot.* 143. *Mart. Ruſt. t.* 57.

Eryſimum Sophia dictum. *Raii Syn.* 298.

FREQUENT about rubbiſh, waſte ground, and dunghills, flowering in July and later.

Root annual, ſmall, tapering. Stem about 2 feet high, erect, branched, round, very leafy. Leaves alternate, ſpreading, doubly pinnate, or perhaps more properly pinnatifid, for the principal and partial diviſions are all confluent; the ultimate ſegments are lanceolate, acute, entire, more or leſs evidently hairy; the terminal ones largeſt. Flowers very ſmall, pale-yellow, the minute petals almoſt hidden by the calyx, which has nearly as much colour as themſelves. The corymbus ſoon grows out into a very long ſpike of numerous ſlender pods, which ſtand erect on ſpreading ſtalks. Seeds many, ſmall and reddiſh.

Few plants have leſs pretenſions to beauty, though the feathery ſegments of the leaves are not devoid of ſymmetry.

The old name Flix-weed aroſe from the quality attributed to this plant of curing immoderate laxity of the bowels.

SISYMBRIUM Sophia.

Flix-weed.

TETRADYNAMIA Siliculosa.

Gen. Char. Pod cylindrical, bursting with nearly straight valves. Cal. and Cor. spreading.

Spec. Char. Leaves doubly pinnate, a little hairy. Petals smaller than the calyx.

Syn. Sisymbrium Sophia. Linn. Sp. Pl. 920. Sm. Fl. Brit. 704. Huds. 297. With. 582. Hull. 150. Relh. 258. Sibth. 208. Withet. 143. Mart. Rust. 1. 57.

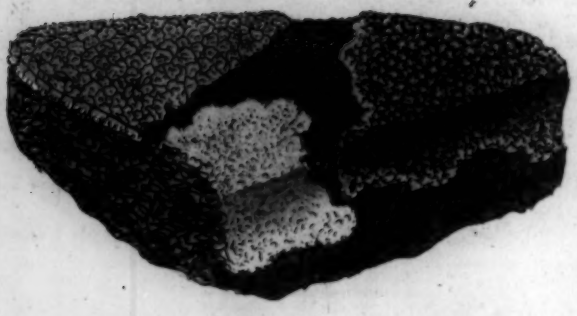
Erysimum Sophia dictum. Hall Syn. 298.

IT REQUIENT about rubbish, waste ground, and dunghills, flowering in July and later.

Root annual, small, tapering. Stem about a foot high, erect, branched, round, very leafy. Leaves alternate, spreading, doubly pinnate, or perhaps more properly pinnatifid, for the principal and partial divisions are all confluent; the ultimate segments are lanceolate, acute, entire, more or less evidently hairy; the terminal ones largest. Flowers very small, pale-yellow; the unguis of petals almost hidden by the calyx, which has nearly as much colour as them. The corymbus soon grows out into a very long spike of numerous slender pods, which stand erect on spreading stalks. Seeds many, small and reddish.

Few plants have less pretensions to beauty, though the feathery segments of the leaves are not devoid of symmetry.

The old name Flix-weed arose from the quality attributed to this plant of curing immoderate laxity of the bowels.



Dec.1. 1801. Published by Jas. Sowerby, London.

LICHEN conſpurcatus.

Duſty Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt thick, greyiſh-white, cracked, rugoſe, at length mealy; very white within. Shields numerous, ſcattered, minute; at firſt prominent and pale brown; then concave and black.

MR. D. TURNER firſt detected this Lichen on the old Roman walls of Burgh caſtle in Suffolk, afterwards at Scole inn, Norfolk, and other places. We have obſerved the free-ſtone church of Cawſton in the ſame county in many parts entirely encruſted with it, particularly the elegant carving at the weſt end. It ſeems always to chooſe calcareous ſtones, whether of a finer or coarſer texture. We have not been able to refer it to any ſpecies in the work of Acharius, though we are not without a ſuſpicion of its being his *L. calcarius*, a conjecture we may hereafter be able to confirm or diſprove, but in the mean while we would not withhold a plant ſo totally new to Britiſh botaniſts.

The cruſt ſpreads widely, and in moiſt weather may eaſily be detached from the ſtone; it is from half a line to nearly 2 lines in thickneſs, extremely white and chalky within, ſplitting perpendicularly, ſo as to look fibrous. The ſurface is greyiſh-white, very rugged and unequal, cracked into ſmall irregular portions, warty and powdery with age, ſo as to aſſume a dirty or duſty aſpect, to which the innumerable young ſhields of various ſizes, ſprinkled over the cruſt, like grains of clear browniſh ſand, alſo contribute. The ſhields when at maturity are ſtill very ſmall, in a great meaſure immerſed in the cruſt, totally black, concave, with an entire elevated edge.

LICHEN conspurcatus.

Dusky Lichen.

CRYPTOGAMIA Algæ.

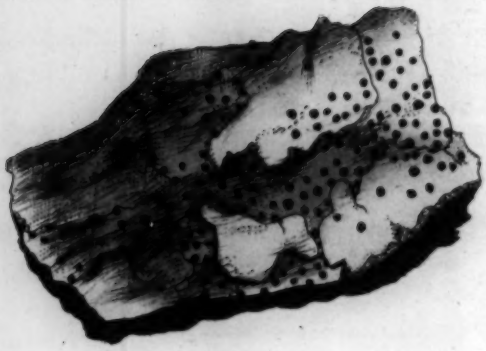
Gen. Char. Male, scattered warts. Female, hooded tubercles, in which the seeds are imbedded.

Spec. Char. Crust thick, greyish-white, cracked, rugose, at length mealy; very white within. Shields numerous, scattered, minute; at first prominent and pale brown; then concave and black.

MR. D. TURNER first detected this Lichen on the old Roman walls of Burgh castle in Suffolk, afterwards at Scole Inn, Norfolk, and other places. We have observed the fructification of Cawfton in the same county in many parts entirely encrusted with it, particularly the elegant carving at the west end. It seems always to choose calcareous stones, whether of a finer or coarser texture. We have not been able to refer it to any species in the work of Acharius, though we are not without a suspicion of its being his L. calcarius, a conjecture we may hereafter be able to confirm or disprove. But in the mean while we would not withhold a place to totally new to British botanists.

The crust spreads widely, and in moist weather may easily be detached from the stone; it is then half a line to nearly a line in thickness, extremely white and chalky within, splitting perpendicularly, so as to look fibrous. The surface is greyish-white, very rugged and unequal, cracked into small irregular portions, warty and powdery with age, so as to assume a dirty or dusky aspect, to which the innumerable young shields of various sizes, sprinkled over the crust, like grains of clear brownish sand, also contribute. The shields when at maturity are still very small, in a great measure immersed in the crust, totally black, concave, with an entire elevated edge.

G.R. III.



Dec. 1. 1801. Published by Jas. Sowerby, London.

LICHEN corneus.

Horny-cupped Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt mealy, thin, white. Shields a little elevated, brown, ſemi-tranſparent, with a thick, elevated, even, ſmooth, paler border.

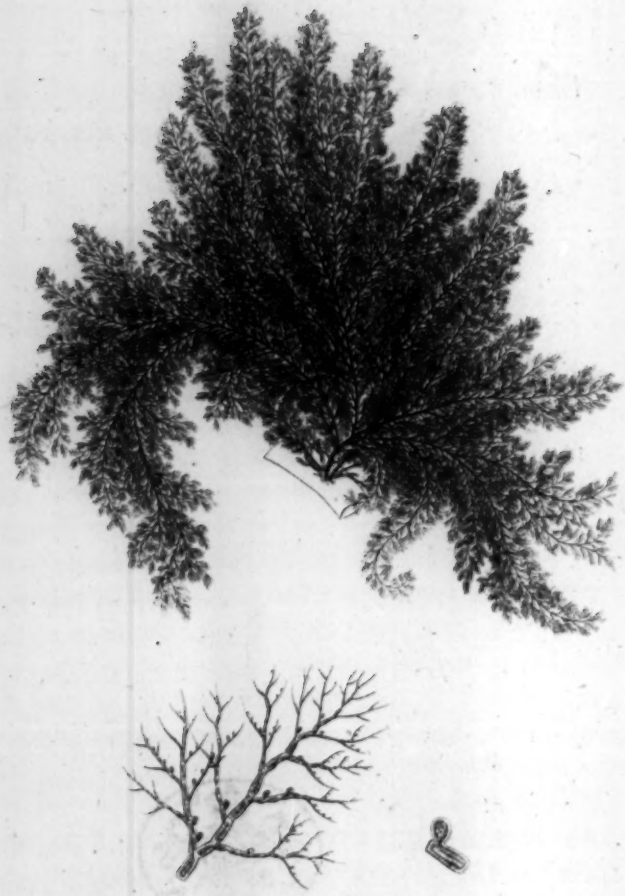
SYN. Lichen corneus. *With.* *v.* 4. 20. *t.* 31. *f.* 3. *Hull.* 290.

FIRST found by J. W. Griffith, Eſq. on oaks at Garn near Denbigh, and communicated to Dr. Withering, the only writer (except Dr. Hull) who appears hitherto to have noticed this ſpecies. We have received fine ſpecimens from Eggleſton, Durham, by favour of the Rev. Mr. Harriman; Mr. W. Brunton alſo has found it on oaks in Studley wood near Ripon. In the more champaign parts of England it has not yet occurred.

The thin, mealy, white (or greeniſh-white) cruſt ſpreads cloſely over the inequalities of the bark in ſmall interrupted patches. The ſhields are pretty numerous, irregularly ſcattered, a little elevated on a ſwelling, as it were, of the cruſt, which enfolds their baſe. They are ſmall, nearly uniform in ſize, concave, of a brown horn-like colour, in ſome degree tranſparent, eſpecially the border, which is paler and rather waxy, much elevated, ſmooth and even.

With the greateſt deference for Mr. Griffith's opinion, whoſe accuracy and penetration we have experienced, we conceive this plant, which ſometimes grows mixed with *Lichen pulicaris*, may have led him to ſuſpect the metamorphoſis of *L. tricolor* (that is *marmoreus*) into *pulicaris*, ſee *With.* *v.* 4. 23. The ſhields of *corneus* have in fact an occaſional reſemblance to thoſe of *marmoreus* when both are in decay.

G.R. III.



Dec.1.1811 Published by Jas Sowerby, London.

CONFERVA roſea.

Roſe-coloured Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, ſolitary, cloſed tubercles, projecting from the frond, but united with it.

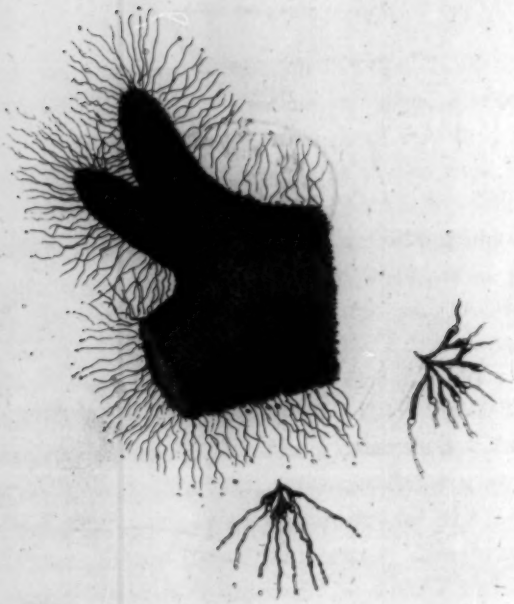
SPEC. CHAR. Roſe-coloured, repeatedly branched, very ſlender and tufted; articulations pellucid, a little contracted. Capſules ſeſſile, obovate, lateral, leaning one way.

SYN. Ceramium roſeum. *Roth. Catalect. Bot. faſc.* 2. 182.

MR. SOWERBY firſt obſerved this elegant little *Conferva* in Auguſt 1797, growing in denſe tufts upon *Fucus veſiculoſus* by the river ſide at Yarmouth. Specimens ſent by Dr. Roth to Mr. Turner prove it to be the *Ceramium roſeum* of his *Catalecta Botanica*, which no other writer ſeems to have mentioned. We have profited by his excellent and ample deſcription in the following more conciſe one.

Several ſtems, an inch or two long, grow from a ſmall round ſhield-like baſe. Each ſtem is repeatedly and alternately branched; the ultimate branches very numerous, tufted, extremely ſlender. The joints, moſt viſible in the ſtem and larger branches, are oblong, rather ſwelling; their articulations, or points of connection, contracted, exquiſitely pellucid, and colourleſs. Capſules numerous, ranged in a ſingle row on the upper ſide of each general and partial branch, ſmall, nearly ſeſſile, obovate when ripe, becoming dark purple by age. The general hue of the plant is an elegant roſe-colour.

G.R. III.



June 1. 1802. Published by Jas Sowerby, London.

ULVA incraſſata.

Thick Laver.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Frond* membranous or gelatinous. *Seeds* ſolitary, ſcattered throughout its ſubſtance, under the cuticle.

SPEC. CHAR. Frond gelatinous, flat, ſinuated and toothed, green, thickened at the margin, clothed with tufted jointed filaments.

SYN. Ulva incraſſata. *Hudſ.* 572. *With. v.* 4. 124. *Relh. Suppl.* 2. 23.

Tremella incraſſata. *Hull.* 310.

T. paluſtris gelatinoſa, damæ cornuum facie. *Dill. Muſc.* 51. *t.* 10. *f.* 10.

Conferva gelatinoſa, damæ cornua repræſentans. *Dill. in Raii Syn.* 60.

FOUND by T. F. Forſter, Eſq. growing on *Hypnum riparium*, and intermixed with *Chara biſpida*, in a pond at Finchley. The fronds are much branched and divaricated, variouſly ſinuated and toothed, compreſſed, the edge of their lower part (but not of the upper ſubdiviſions) thicker than the middle. The whole plant is gelatinous and ſlippery, of a graſs-green hue. Minute ſeeds are ſcattered through its internal ſubſtance. The ſurface is every where clothed with minute thick-ſet tufts of branched filaments, which when very highly magnified appear jointed or beaded, ſomewhat like a *Conferva*. A ſimilar ſtructure in other ſpecies, however, ſeems to prove theſe tufts a part of the plant, and not a paraſitical production.

GR III.

June 1. 1802. Published by Jas Sowerby, London.

ULVA pruniformis.

Plum Laver.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Frond* membranous or gelatinous. *Seeds* ſolitary, ſcattered throughout its ſubſtance, under the cuticle.

SPEC. CHAR. Frond globoſe, gelatinous, filled with ſoft pulp, olive-green, clothed with awl-ſhaped filaments.

SYN. Ulva pruniformis. *Linn. Sp. Pl.* 1633. *Hudſ.* 572. *With. v.* 4. 120. *Relh. Suppl.* 3. 14. *Abbot.* 274.
Tremella pruniformis. *Hull.* 310.

MR. HUDSON mentions the lakes of Weſtmoreland as the native place of this ſingular *Ulva*. Our ſpecimens were collected by Mr. Dawſon Turner in turf pits not far from Yarmouth.

It grows on aquatic plants under water, ſeſſile, globoſe, of various ſizes from that of a pea to a bullace plum, which laſt it frequently more exactly reſembles by means of a furrow or contraction on one ſide. Its colour is a dull or olive green. The ſurface is clothed with ſhaggy awlſhaped filaments, tapering into very ſlender points, which, though not jointed, evince the affinity of this plant to that in our laſt plate. The coat or ſkin of this *Ulva* is moderately thick, fleſhy or gelatinous, enveloping a maſs of pale ſoft pulp, in which Linnæus obſerved the minute ſeeds. His deſcription in *Fl. Suecica, p.* 434, is excellent, and leaves no doubt as to the identity of his plant.

ULVA pruniformis.
Plum Laver.

CRYPTOGAMIA Alga.

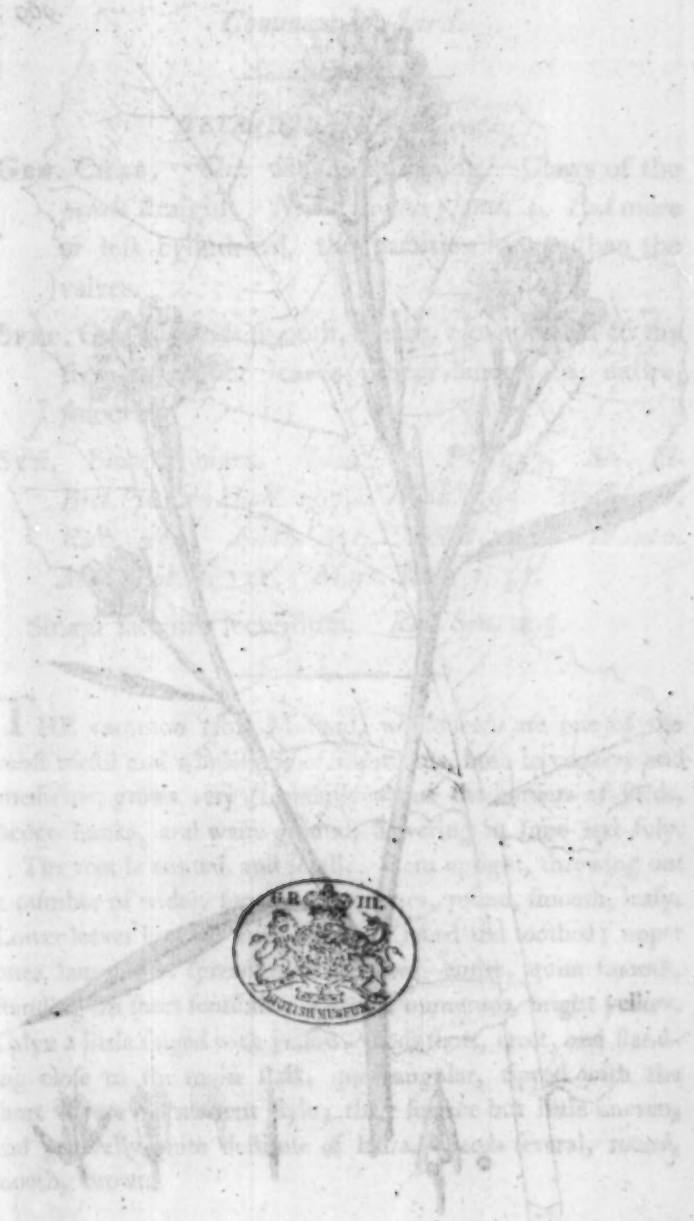
Gen. Char. Frond membranous or gelatinous. Seeds folitary, scattered throughout its substance, under the cuticle.

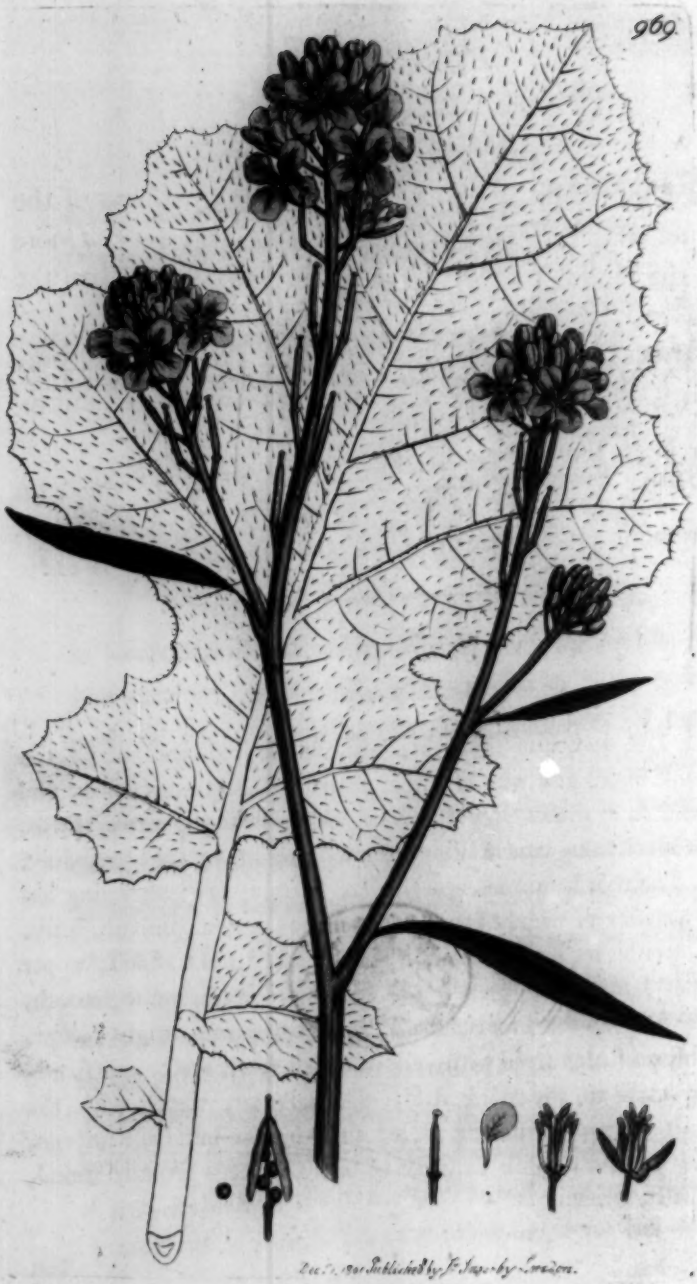
Spec. Char. Frond globole, gelatinous, filled with soft pulp, olive-green, clothed with awl-shaped filamenta.

Syn. Ulva pruniformis. Linn. Sp. Pl. 1633. Huds. 572. Web. & Mohr. 120. Relh. Suppl. 3. 14. Abbot. 274.
Tremella pruniformis. Huds. 570.

MR. HUDSON mentions the lakes of Wetmoreland as the native place of this singular Ulva. Our specimens were collected by Mr. Dawson Turner in Surrey not far from Farnham.

It grows on aquatic plants under water, fefile, globole, of various fizes from that of a pea to a bullace plum, which laft it frequently more exactly refembles by means of a furrow or contraction on one fide. Its colour is a dull or olive green. The furface is clothed with fimple awl fhaped filamenta, tapering into very fender points, which, though not jointed, evince the affinity of this plant to that in our laft plate. The coat or fkin of this Ulva is moderately thick, fleshy or gelatinous, enveloping a mafs of pale foft pulp, in which numerous obferved the minute feeds. His defcription in Fl. Suecica, p. 434. is excellent, and leaves no doubt as to the identity of his plant.


G.R. III.



Dec. 1. 1801. Published by J. Sowerby, London.

SINAPIS nigra.

Common Muſtard.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Cal.* widely ſpreading. Claws of the *petals* ſtraight. *Nectariferous glands* 4. *Pod* more or leſs cylindrical, the partition longer than the valves.

SPEC. CHAR. Pods ſmooth, ſquare, cloſe preſſed to the ſtem. Upper leaves linear-lanceolate, entire, ſmooth.

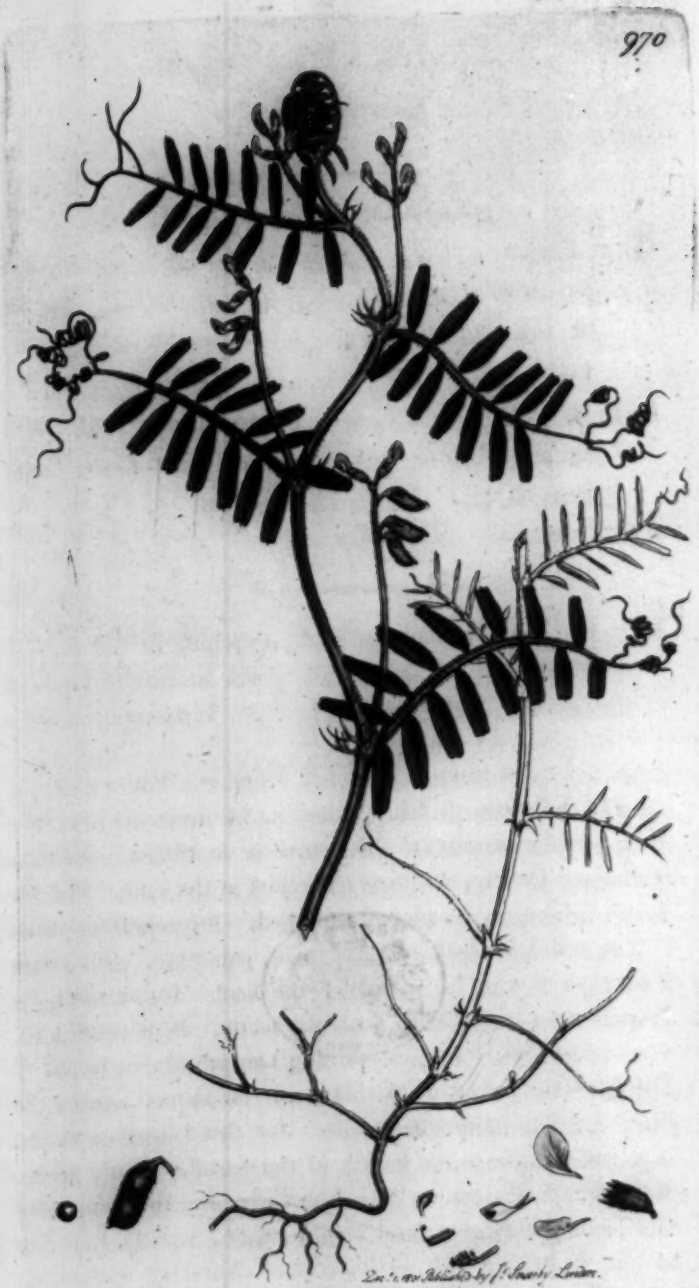
SYN. Sinapis nigra. *Linn. Sp. Pl.* 933. *Sm. Fl. Brit.* 722. *Hudſ.* 297. *With.* 595. *Hull.* 148. *Relh.* 259. *Sibth.* 209. *Abbot.* 146. *Woodv. Med. Bot. t.* 151. *Mart. Ruſt. t.* 51.

Sinapi ſativum ſecundum. *Raii Syn.* 295.

THE common table Muſtard, whoſe ſeeds are one of the moſt uſeful and wholeſome of ſtimulants, both in cookery and medicine, grows very frequently about the borders of fields, hedge banks, and waſte ground, flowering in June and July.

The root is annual, and ſmall. Stem upright, throwing out a number of widely ſpreading branches, round, ſmooth, leafy. Lower leaves lyrate, rough, variouſly lobed and toothed; upper ones lanceolate, ſpreading or deflexed, entire, quite ſmooth, ſtanding on ſhort footſtalks. Flowers numerous, bright yellow. Calyx a little tinged with yellow. Pods ſhort, erect, and ſtanding cloſe to the main ſtalk, quadrangular, tipped with the ſhort ſquare permanent ſtyle; their ſurface but little uneven, and generally quite deſtitute of hairs. Seeds ſeveral, round, mooth, brown.

G R III
BRITISH MUSEUM



Engd. as the Act directs by J. Sowerby, London.

ERVUM hirſutum.
Hairy Tare.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* capitate, hairy all over.

SPEC. CHAR. Stalks many-flowered. Pods hairy, each containing two ſeeds.

SYN. Ervum hirſutum. *Linn. Sp. Pl.* 1039. *Sm. Fl. Brit.* 776. *Hudſ.* 321. *With.* 640. *Hull.* 166. *Relh.* 275. *Sibth.* 225. *Abbot.* 159. *Curt. Lond. faſc.* 1. *t.* 54. *Dickſ. H. Sicc. faſc.* 8. 13.
Cracca minor. *Raii Syn.* 322.

BUT too common in corn-fields, to which in wet ſeaſons it is particularly deſtructive; it alſo grows in various kinds of cultivated ground, and alſo about hedges. It flowers and ſeeds copiouſly from June till autumn.

Root annual. Stems branched from the bottom, weak, angular, nearly ſmooth, leafy, climbing by means of branched tendrils which terminate the common footſtalks. Leaflets numerous, alternate, elliptical, notched at the end. Stipulæ half-halberdſhaped, occaſionally toothed. Flowers from about 5 to 7 on a longiſh axillary ſtalk, ſmall, pale blue, with a dark ſpot on each ſide of the point of the keel. Calyx not quite ſo long as the corolla, with 5 narrow teeth. Pods pendulous, ſhort, compreſſed, hairy, containing two prominent ſeeds.

The eſſential character of this genus is unqueſtionably the capitate ſtigma, hairy on all ſides; for the Linnæan mark, "calyx in 5 diviſions the length of the corolla," only agrees with *Ervum Lens*, which is a true *Cicer*, and the remaining ſpecies, except *birſutum* and *tetraſpermum*, will be found to agree much better both in habit and character with other genera. See *Fl. Brit.* 776.

MEDICAGO. Lupulina.

Black Medick, or Nonsuch.

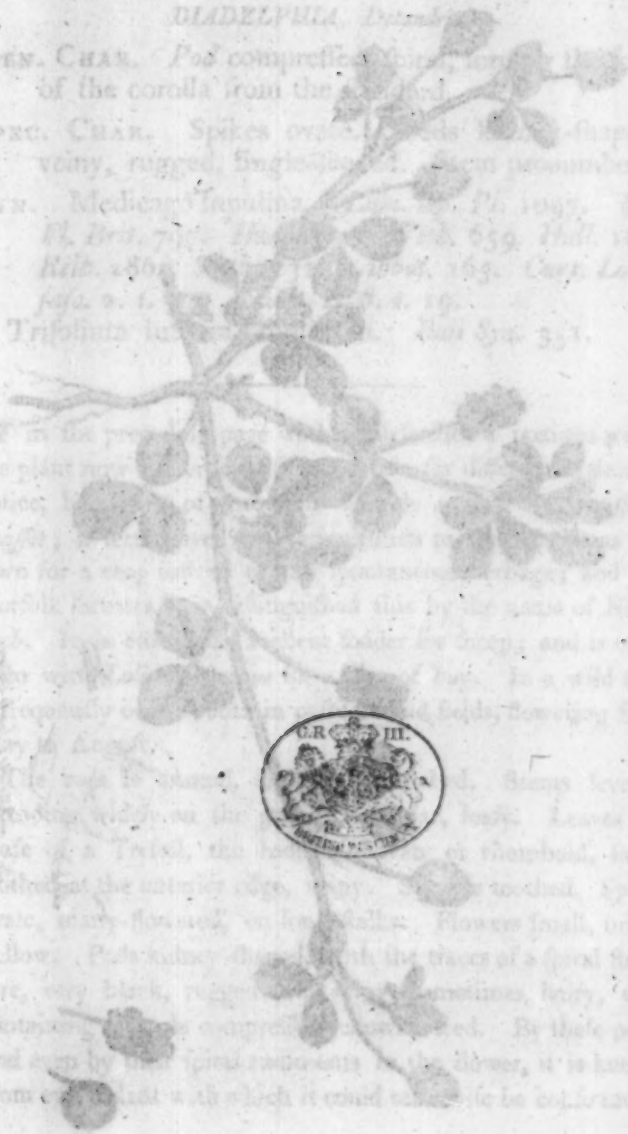
DIADELPHIA *Decandria.*

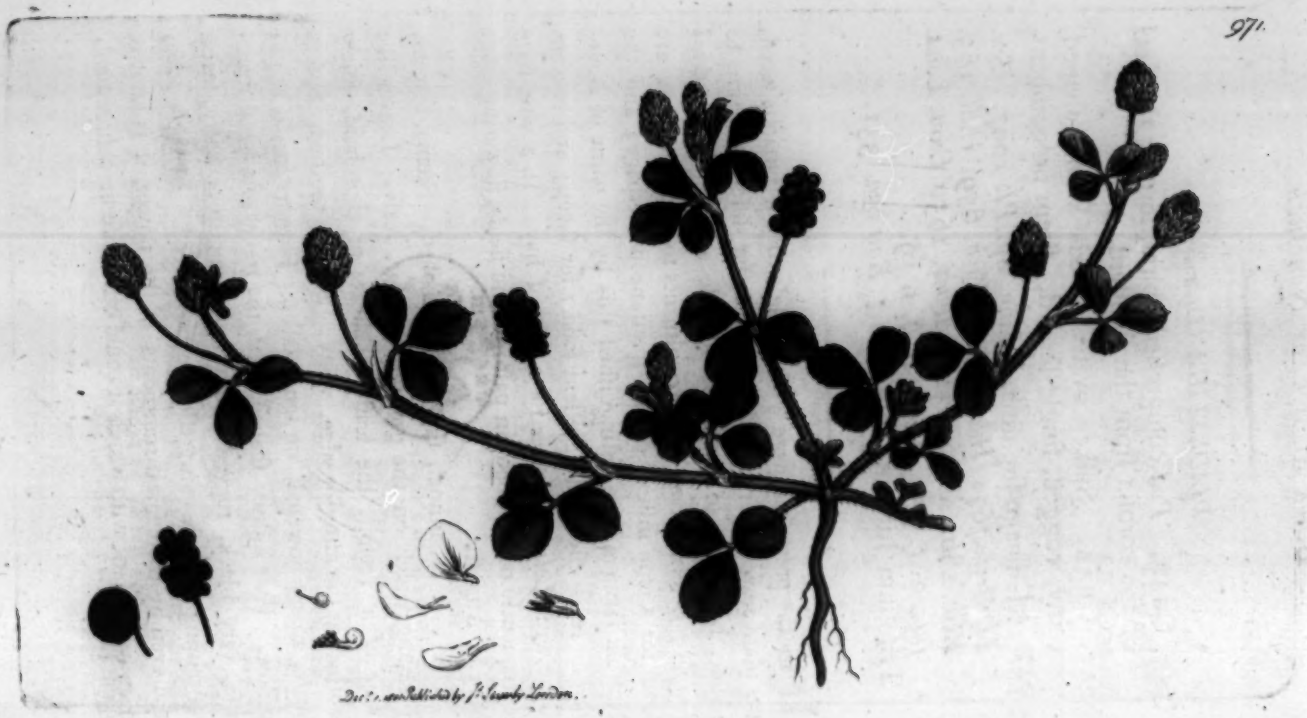
GEN. CHAR. *Pod* compressed, [illegible] of the corolla from the [illegible]

SPEC. CHAR. Spikes ovate, [illegible]-shaped, veiny, rugged, [illegible] prostrate.

SYN. Medicago lupulina [illegible] *Fl. Brit.* 706. [illegible] 639. *Hall.* 169. *Relh.* 180. [illegible] *Prod.* 163. *Curt. Lond. fasc.* 2. t. [illegible] *Ger.* 1161. *Emac.* 1161.

Trifolium lupulinum [illegible] *Hort. Cliff.* 351.





Drawn and Published by J. Sowerby London.

MEDICAGO lupulina.

Black Medick, or Noneſuch.

DIADELPHIA Decandria.

GEN. CHAR. *Pod* compreſſed, ſpiral, forcing the keel of the corolla from the ſtandard.

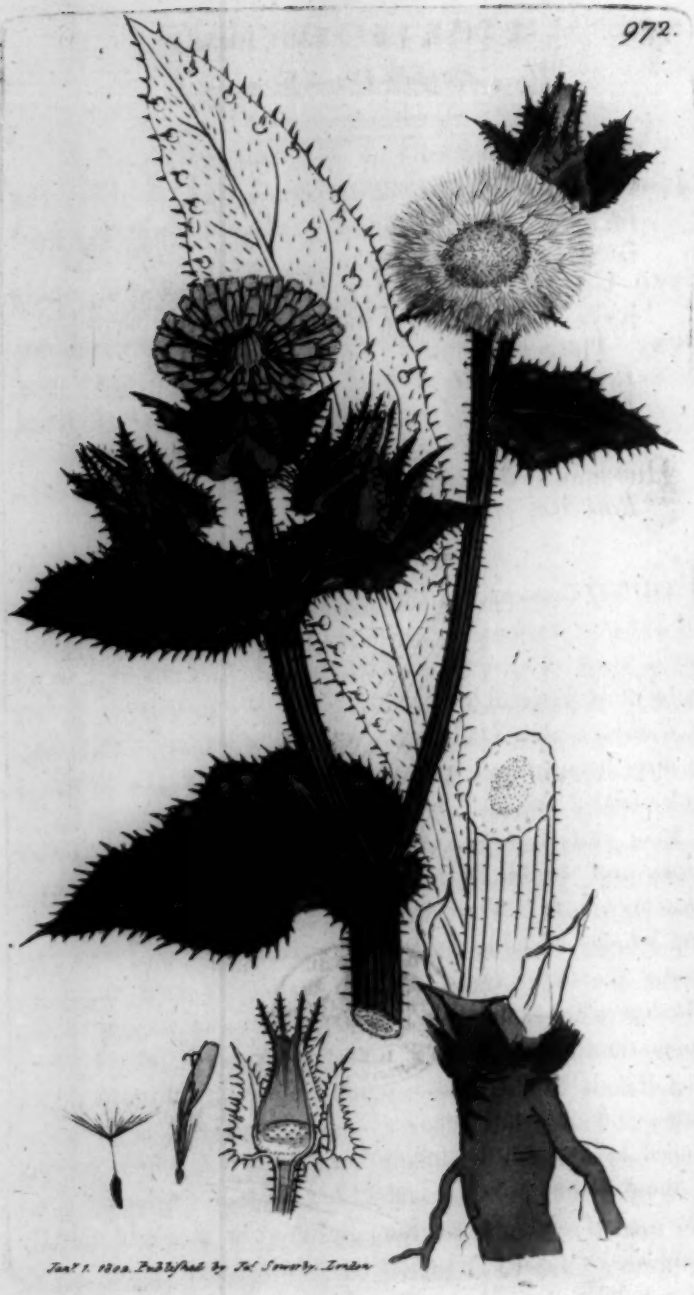
SPEC. CHAR. Spikes ovate. Pods kidney-ſhaped, veiny, rugged, ſingle-ſeeded. Stem procumbent.

SYN. Medicago lupulina. *Linn. Sp. Pl.* 1097. *Sm. Fl. Brit.* 797. *Hudſ.* 330. *With.* 659. *Hull.* 165. *Relh.* 286. *Sibth.* 232. *Abbot.* 165. *Curt. Lond. faſc.* 2. *t.* 57. *Mart. Ruſt. t.* 19.
Trifolium luteum lupulinum. *Raii Syn.* 331.

IF in the preceding page we have deſcribed a noxious weed, the plant now under conſideration has far different claims to notice, being one of the moſt valuable among the *artificial graſſes*; a term given by agriculturiſts to ſuch plants as are ſown for a crop inſtead of the ſpontaneous herbage; and the Norfolk farmers have diſtinguiſhed this by the name of *Noneſuch*. It is eſteemed excellent fodder for ſheep; and is often ſown with *Lolium perenne* for a crop of hay. In a wild ſtate it frequently occurs, both in paſtures and fields, flowering from May to Auguſt.

The root is annual, tapering, branched. Stems ſeveral, ſpreading widely on the ground, angular, leafy. Leaves like thoſe of a Trefoil, the leaflets obovate or rhomboid, finely toothed at the anterior edge, veiny. Stipulæ toothed. Spikes ovate, many-flowered, on long ſtalks. Flowers ſmall, bright yellow. Pods kidney-ſhaped, with the traces of a ſpiral ſtructure, very black, rugged and veiny, ſometimes hairy, each containing a ſingle compreſſed yellowiſh ſeed. By theſe pods, and even by their ſpiral rudiments in the flower, it is known from every plant with which it could otherwiſe be confounded.

G.R III.



Sept 1. 1810. Published by Jas Sowerby, London

PICRIS echioides.

Briſtly Ox-tongue.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Receptacle* naked. *Cal.* double; the inner equal; the outer lax. *Down* feathery. *Seeds* tranſverſely rugged.

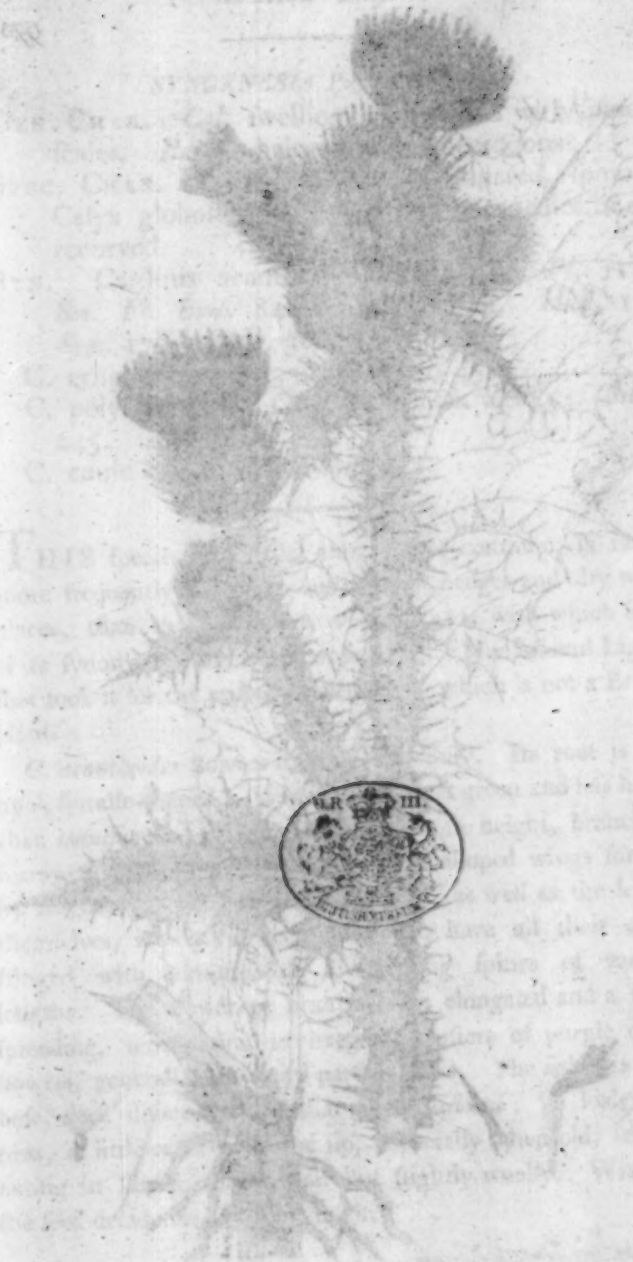
SPEC. CHAR. Outer calyx of five very large prickly leaves. Seed-down ſtalked. Leaves waved.

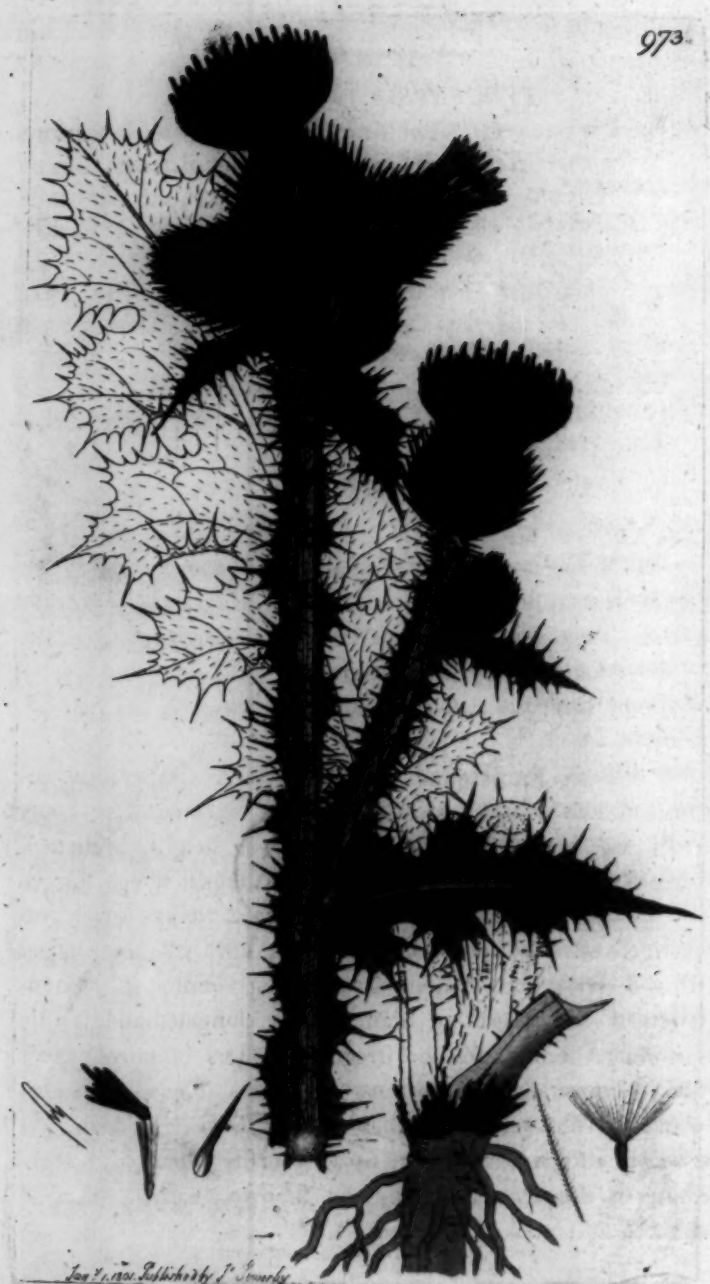
SYN. Picris echioides. *Linn. Sp. Pl.* 1114. *Sm. Fl. Brit.* 814. *Hudſ.* 342. *With.* 673. *Hull.* 172. *Relh.* 297. *Sibth.* 240. *Abbot.* 168. *Curt. Lond. faſc.* 3. *t.* 51.

Hieracium echioides, capitulis Cardui benedicti. *Raii Syn.* 166.

FOUND about hedges, borders of fields and banks, principally on a clay or loamy ſoil, flowering in June and July, but it is not a plant of general occurrence. About London it ſeems to be more frequent than in Norfolk. We have however ſeen it in unuſual abundance in the grounds of Edward Rigby, Eſq. at Framingham near Norwich, and by Wrongay church 5 miles from Lynn.

Root annual, tap-ſhaped, often branched. Herb rather milky and very bitter, remarkable for the rigid ſpines, each growing out of a white tubercle, which are ſcattered over it, and which, added to other briſtles that fringe the leaves and clothe the ſtem, cauſe it not to be handled with impunity. The leaves are undulated, and of a bright ſhining green; the upper ones heart-ſhaped, claſping the ſtem, which riſes to 2 or 3 feet in height, and is much branched. Flowers rather large, and of a full yellow. Outer calyx of 5 large heart-ſhaped leaves, a little diſtant from the inner, which conſiſts of about 8 cloſe leaves, equal in length, each producing from near its top a ſingular pinnate purpliſh awn. Seeds beautifully wrinkled or ſtriated tranſverſely, bearing their plumy down on a ſtalk.





Jan 1. 1801. Published by J. Sowerby

CARDUUS acanthoides
Welted Thiſtle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* ſwelling, imbricated with ſpinous ſcales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves decurrent, ſinuated, ſpinous. Calyx globoſe, not quite ſeſſile; its ſcales linear, recurved.

SYN. Carduus acanthoides. *Linn. Sp. Pl.* 1150. *Sm. Fl. Brit.* 848. *With.* 698. *Hull.* 179. *Sym.* 176. *Relh.* 304.

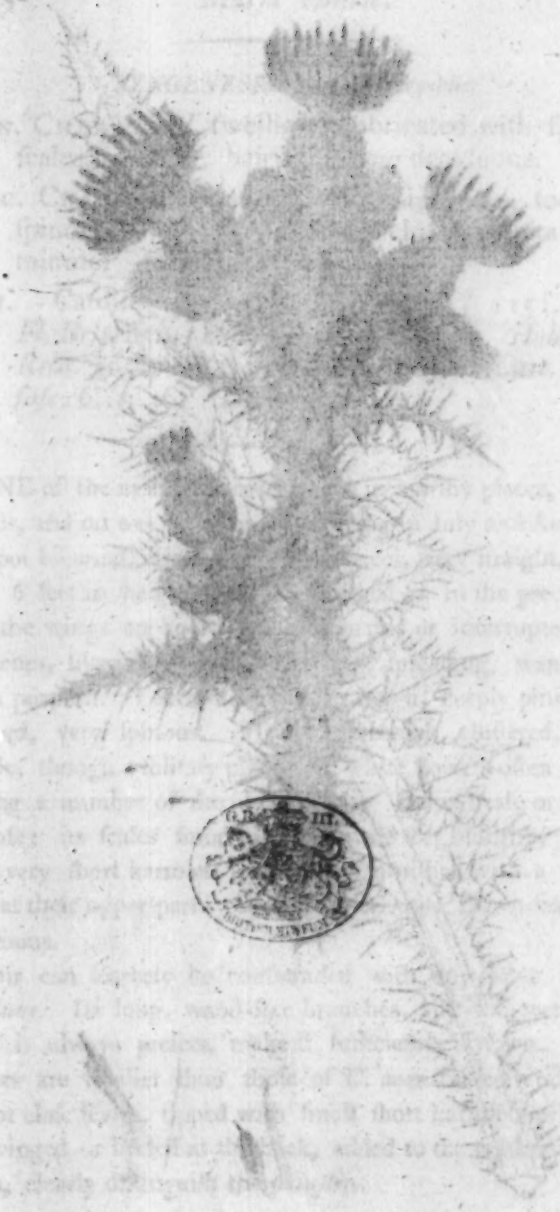
C. criſpus. *Hudſ.* 350. *Lightf.* 452.

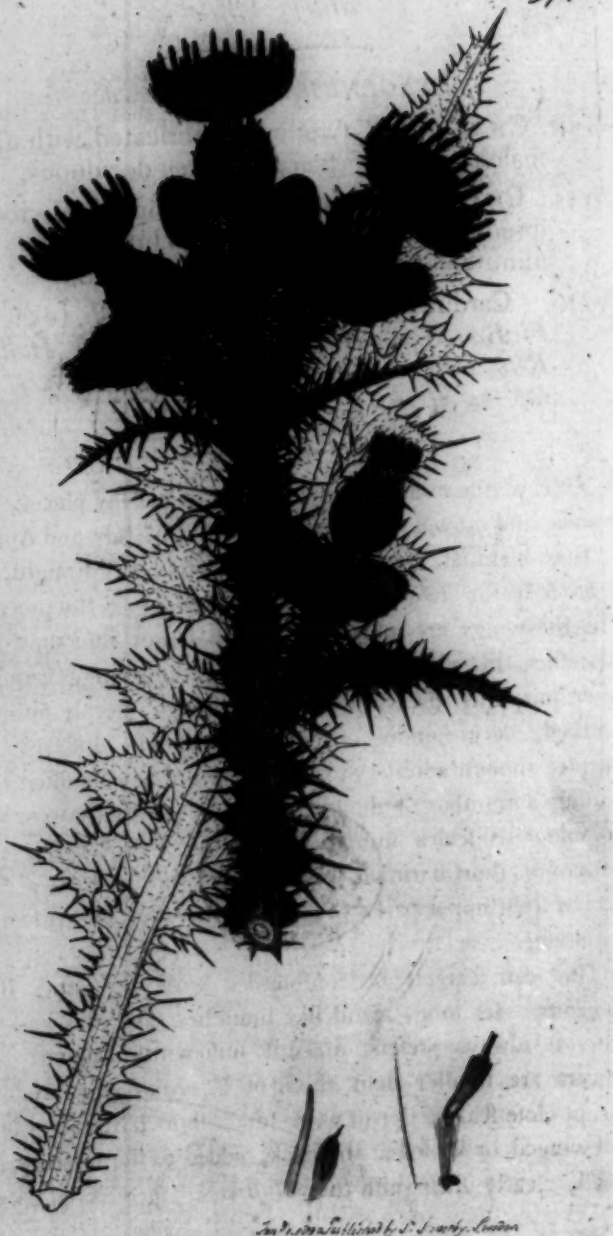
C. polyacanthos. *Curt. Lond. faſc.* 6. *t.* 54. *Sibth.* 245. *Abbot.* 175.

C. caule criſpo. *Raii Syn.* 194.

THIS ſpecies of Thiſtle, though not common, is rather more frequently to be met with, about hedges and dry waſte places, than the *tenuiflorus*, *v.* 6. *t.* 412, with which ſome of its ſynonyms have been confounded. Hudſon and Lightfoot took it for the *criſpus* of Linnæus, which is not a Britiſh plant.

C. acanthoides flowers in June and July. Its root is annual, ſpindle-ſhaped. Whole plant more green and leſs hoary than *tenuiflorus*. Stem 3 feet or more in height, branched, furrowed, clothed on every ſide with ſcalloped wings formed by the decurrent leaves. Theſe wings, as well as the leaves themſelves, which are deeply ſinuated, have all their edges fringed with innumerable divaricating ſpines of various lengths. The flowering branches are elongated and a little ſpreading, terminating in irregular cluſters of purple erect flowers, generally on ſhort partial ſtalks. The calyx is globoſe, very different from that of *tenuiflorus*; its ſcales linear, a little recurved at the tip, eſpecially when old, terminating in ſlender ſpines, and but ſlightly woolly. Wing of the ſeed deciduous, briſtly, rough.





Jan.ry 1.1810 as Published by J. Sowerby, London

CARDUUS paluſtris.

Marſh Thiſtle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* ſwelling, imbricated with ſpinous ſcales. *Recept.* hairy. *Down* deciduous.

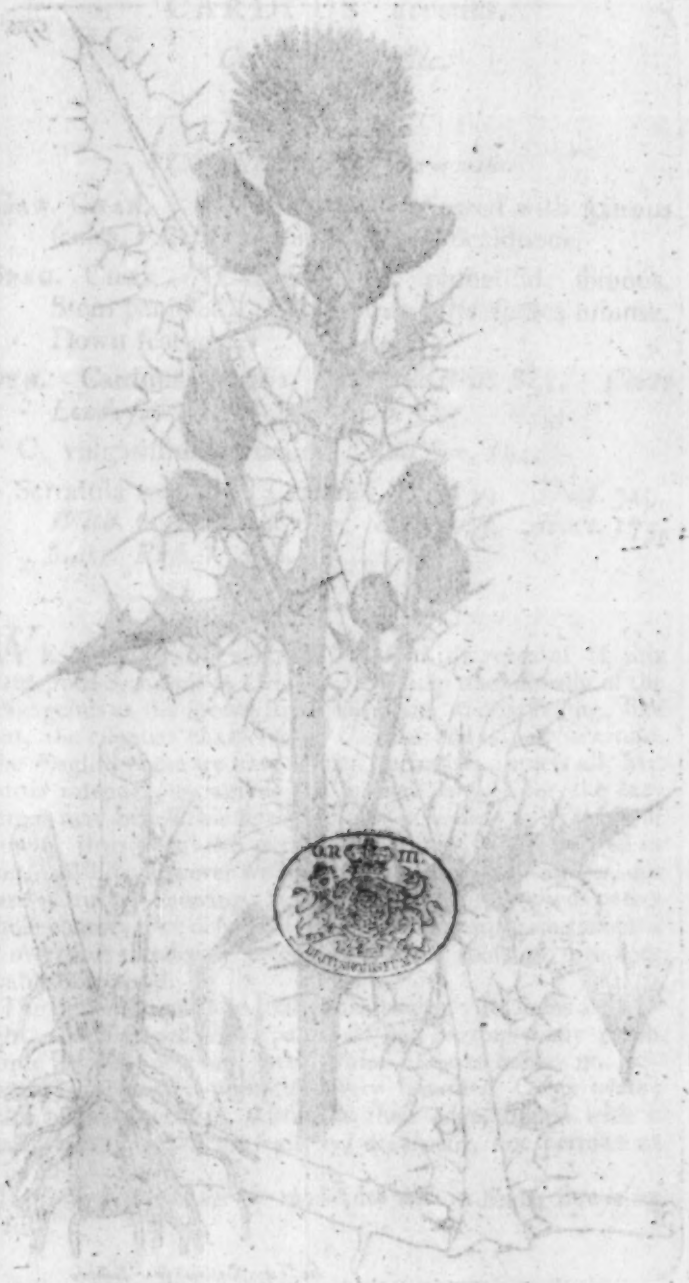
SPEC. CHAR. Leaves decurrent, pinnatifid, toothed, ſpinous, rough. Calyx ovate, cluſtered; its ſpines minute. Down feathery.

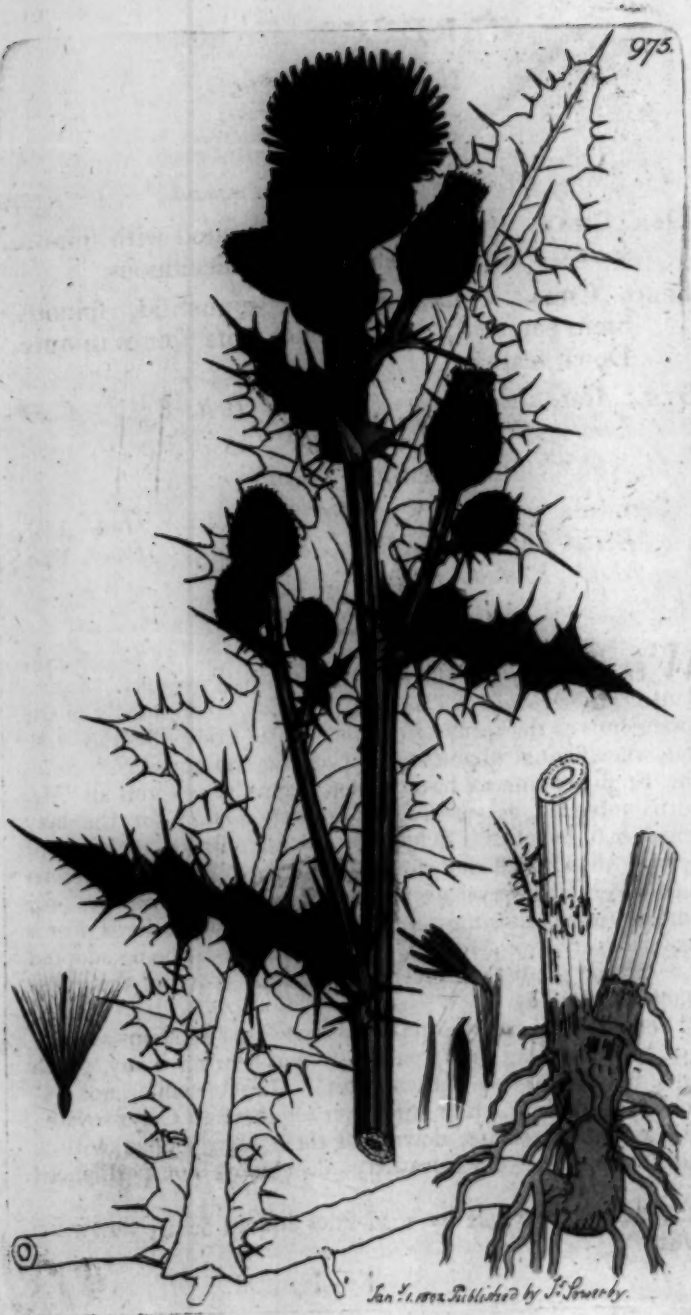
SYN. Carduus paluſtris. *Linn. Sp. Pl.* 1151. *Sm. Fl. Brit.* 850. *Hudſ.* 352. *With.* 697. *Hull.* 179. *Relh.* 305. *Sibth.* 245. *Abbot.* 176. *Curt. Lond. faſc.* 6. *t.* 56. *Raii Syn.* 194.

ONE of the moſt frequent Thiſtles in marſhy places, boggy woods, and on wet commons, flowering in July and Auguſt.

Root biennial, branched. Stem erect, very ſtraight, from 3 to 6 feet in height, angular, winged as in the preceding, but the wings are more deeply ſinuated or interrupted; the branches, likewiſe winged, are long, ſpreading, wand-like, often purpliſh. Leaves dark-green, rough, deeply pinnatifid, toothed, very ſpinous. Flowers terminal, cluſtered, deep purple, though a ſolitary plant with white flowers often occurs among a number of the uſual colour. Calyx ovate or nearly globoſe; its ſcales ſmoothiſh, obovate or bluntiſh, tipped with very ſhort harmleſs ſpines, and furniſhed with a dilated keel at their upper part. Seeds very ſmooth. Down feathery, deciduous.

This can ſcarcely be confounded with any other Britiſh *Carduus*. Its long, wand-like branches, and the wet ſituations it always prefers, make it ſufficiently known. The flowers are ſmaller than thoſe of *C. acanthoides*, and their abrupt cloſe ſcales, tipped with ſmall ſhort harmleſs prickles, and winged or keeled at the back, added to the feathery ſeed-down, clearly diſtinguiſh the *paluſtris*.





Jan.y 1.1802. Published by J. Sowerby.

CARDUUS arvenſis.

Creeping Thiſtle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* ſwelling, imbricated with ſpinous ſcales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves ſeſſile, pinnatifid, ſpinous. Stem panicled. Calyx ovate; its ſpines minute. Down feathery.

SYN. Carduus arvenſis. *Sm. Fl. Brit.* 851. *Curt. Lond. faſc.* 6. *t.* 57. *Sibth.* 245.

C. vulgatiſſimus viarum. *Raii Syn.* 194.

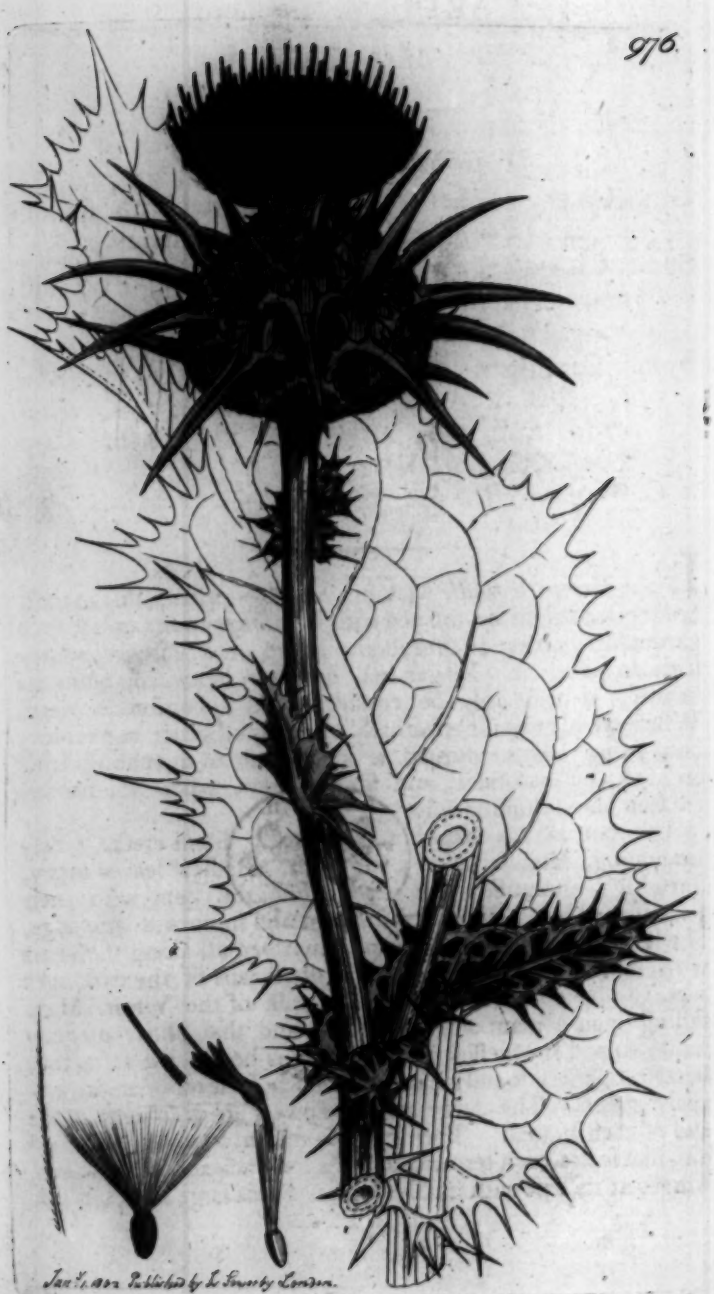
Serratula arvenſis. *Linn. Sp. Pl.* 1149. *Hudſ.* 349. *With.* 696. *Hull.* 180. *Relh.* 303. *Abbot.* 174. *Mart. Ruſt. t.* 132.

WE moſt heartily aſſent to Mr. Curtis's removal of this plant from *Serratula* to *Carduus*, it being undoubtedly of the ſame genus as the ſpecies in our laſt plate, and poſſeſſing, like that, the eſſential characters of *Carduus* and not of *Serratula*. The Engliſh name we have choſen ſeems to expreſs all Mr. Curtis intended, as well as his epithet *curſed*; for the lazy farmer may benefit his fields more by attending to its mode of growth, than by all the curſes he perhaps has often tried in vain. While however we perpetually ſee *annual* thiſtles, for want of timely mowing, ſuffered to ſpread their ſeeds over a whole country, we deſpair of the requiſite means being adopted to overcome the deeply creeping *perennial* roots of this very troubleſome weed.

The botaniſt cannot miſtake this ſpecies. Its ſtems are upright, about a yard high, panicled, and bearing many paliſh purple flowers, now and then white. Leaves ſeſſile, not decurrent, ſmoothiſh, pinnatifid, very ſpinous. Calyx ovate; ſcales broad-lanceolate, downy at their edge, tipped with a ſmall ſpine. Seed-down feathery, deciduous, not permanent as in *Serratula*.

It grows every where by road-ſides and in fields, flowering in July.

G.R. III.



Jan.ʸ 1. 1802 Published by J. Sowerby London.

CARDUUS marianus.

Milk Thiſtle.

SYNGENESIA Polygamia æqualis.

GEN. CHAR. *Cal.* ſwelling, imbricated with ſpinous ſcales. *Recept.* hairy. *Down* deciduous.

SPEC. CHAR. Leaves claſping the ſtem, waved, ſpinous; the radical ones pinnatifid. Calyx-ſcales leafy, bent backward, ſpinous at the edge.

SYN. Carduus marianus. *Linn. Sp. Pl.* 1153. *Sm. Fl. Brit.* 851. *Hudſ.* 353. *With.* 700. *Hull.* 179. *Relh.* 306. *Sibth.* 246. *Abbot.* 176. *Curt. Lond. faſc.* 3. *t.* 54.

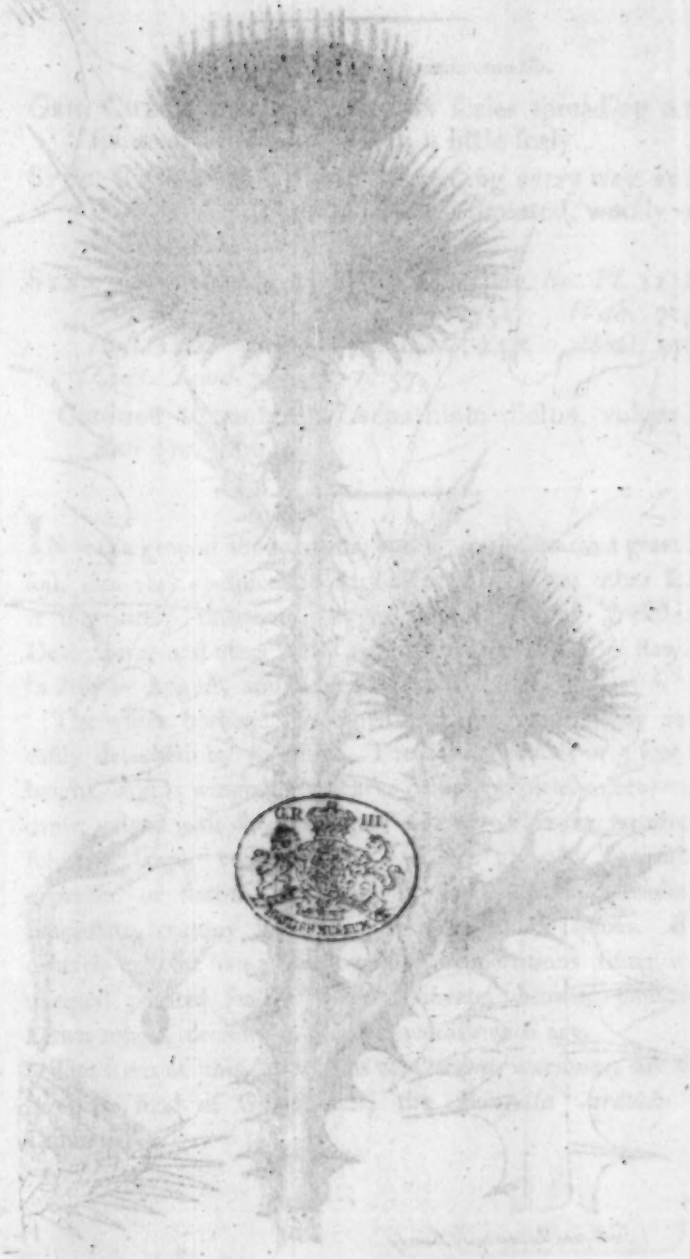
C. Mariæ. *Raii Syn.* 195.

IF the idea of a *thiſtle* were not an impediment, this magnificent plant might be allowed with advantage to ornament ſuch gardens or borders of ſhrubberies as are on a ſufficiently large ſcale to admit it. In general, however, notwithſtanding its beauty, it can only be conſidered as a cumbrous weed. Wherever it grows it effectually excludes all other vegetables; but, being eaſily eradicated, is only permitted to eſtabliſh itſelf on banks by road-ſides, and ſimilar ſpots, where the flowers are ſeen about June or July.

The root is tap-ſhaped and annual. Stem erect, widely branching, ſmooth, 4 or 5 feet high. Radical leaves many, ſpreading, pinnatifid; the reſt claſping the ſtem with their heartſhaped baſe; all waved ſinuated and ſpinous at the edge, of a deep ſhining green, elegantly marbled all along the veins with white, which botaniſts and phyſicians of the dark ages report to have been cauſed by the milk of the Virgin Mary falling upon a plant of this ſpecies, and that all its progeny have retained the bleſſed ſtain. There is however a refractory heretical variety found near London whoſe leaves remain entirely green. The large purple flowers grow ſolitary at the end of each branch. Their calyx is ſmoth, conſiſting of broad leaf-like ſcales, each terminating in a long reflexed ſtrong thorn, fringed at its baſe with ſmaller ſpines. Seeds large and poliſhed.

CARDUUS marianus.

MILK THISTLE.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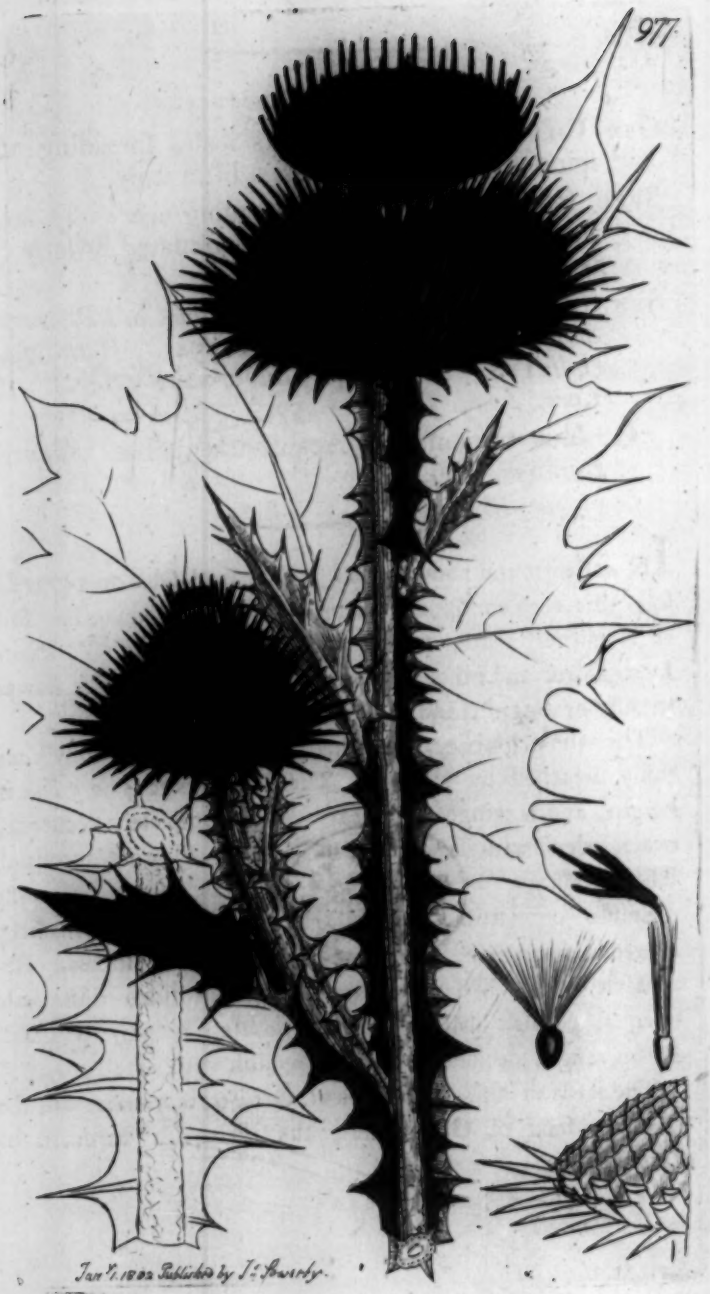


Jan.y 1. 1802 Published by J.s Sowerby.

ONOPORDUM Acanthium.

Cotton-Thiſtle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Cal.* ſwelling, its ſcales ſpreading and ſpinous. *Recept.* cellular, a little ſcaly.

SPEC. CHAR. Calyx-ſcales ſpreading every way, awl-ſhaped. Leaves ovate-oblong, ſinuated, woolly on both ſides.

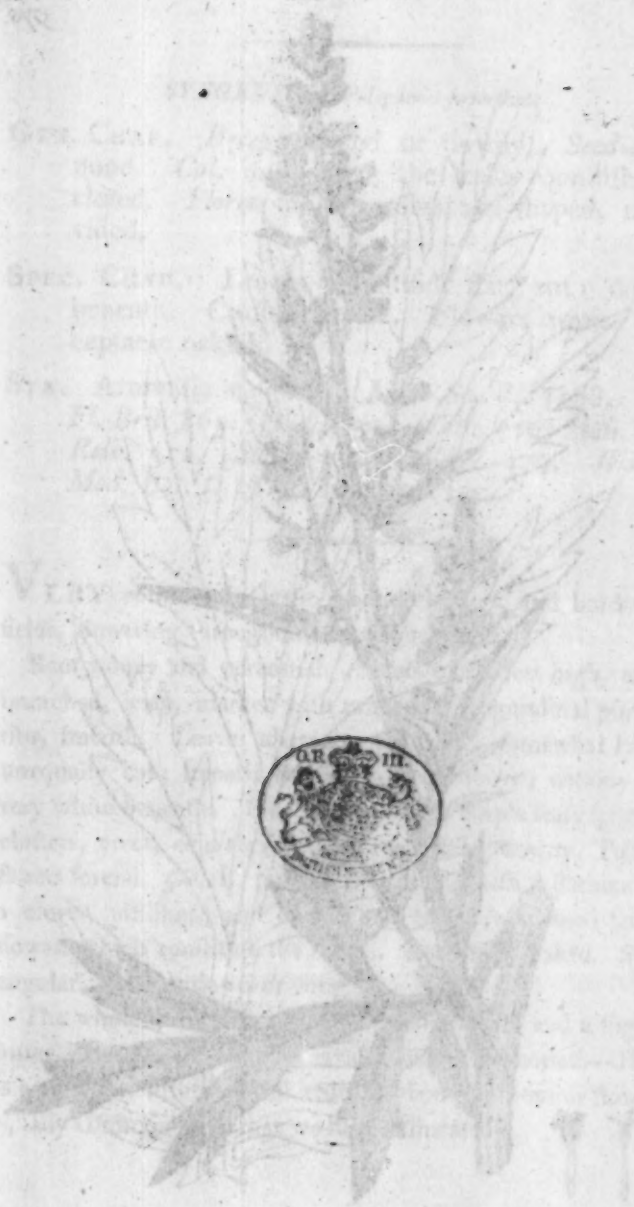
SYN. Onopordum Acanthium. *Linn. Sp. Pl.* 1158. *Sm. Fl. Brit.* 856. *Hudſ.* 354. *With.* 704. *Hull.* 180. *Relh.* 307. *Sibth.* 247. *Abbot.* 177. *Curt. Lond. faſc.* 5. *t.* 57.

Carduus tomentoſus, Acanthium dictus, vulgaris. *Raii Syn.* 196.

IN waſte ground about towns, and by road-ſides on a gravelly ſoil, this very conſpicuous plant often occurs; on other ſoils it is entirely unknown, as in moſt parts of Yorkſhire, Derbyſhire, and other rocky or mountainous tracts. It flowers in July or Auguſt, and is biennial.

The whole herbage is clothed with a white cottony web, eaſily detached by rubbing. The ſtem riſes to 4 or 5 feet in height, and is winged, the leaves being completely decurrent, ovate, edged with large unequal ſpines. Flowers terminal, ſolitary, large, erect, purple. Calyx globoſe, becoming depreſſed or flattiſh, conſiſting of innumerable, ſpreading, lanceolate, cottony ſcales, tipped with yellow ſpines. Receptacle cellular like a honey-comb, its partitions riſing into unequal pointed ſcales. Seeds obovate, brown, poliſhed. Down rough, deciduous, turning reddiſh with age.

The ſeeds of this, as well as of *Carduus marianus*, are the favourite food of Goldfinches, the *Fringilla carduelis* of Linnæus.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Jan.ʸ 1.1802. Published by P. Sowerby. London.

ARTEMISIA vulgaris.

Mugwort.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked or downy. *Seed-down* none. *Cal.* imbricated, the ſcales roundiſh and cloſed. *Florets* of the radius awl-ſhaped, undivided.

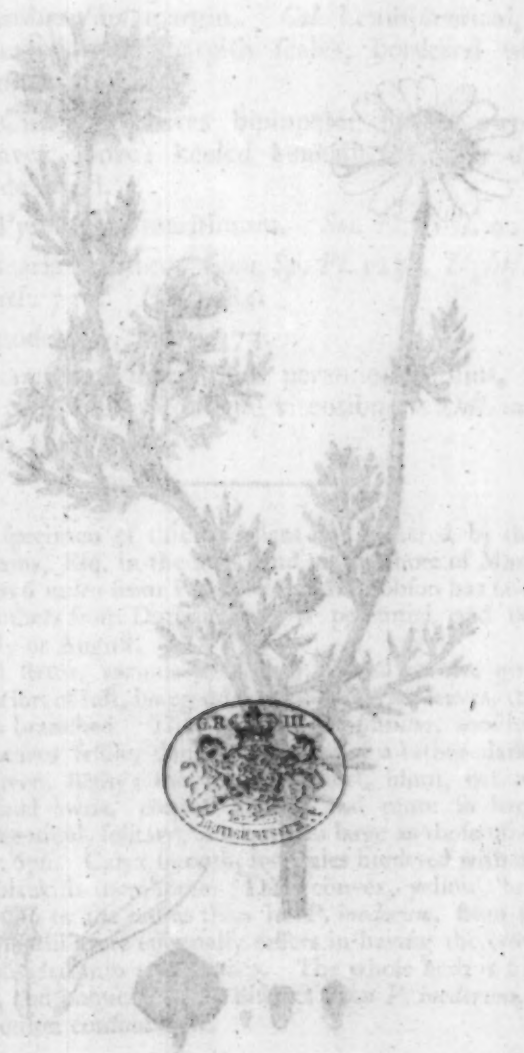
SPEC. CHAR. Leaves pinnatifid, flat, cut; downy beneath. Cluſters ſimple. Flowers ovate. Receptacle naked.

SYN. Artemiſia vulgaris. *Linn. Sp. Pl.* 1188. *Sm. Fl. Brit.* 865. *Hudſ.* 359. *With.* 710. *Hull.* 182. *Relh.* 311. *Sibth.* 250. *Abbot.* 179. *Woodv. Med. Bot. t.* 121. *Raii Syn.* 190.

VERY common in waſte ground, hedges, and borders of fields, flowering throughout Auguſt and later.

Root woody and perennial. Stems 3 or 4 feet high, erect, branched, leafy, marked with numerous longitudinal purpliſh ribs, ſmooth. Leaves alternate, pinnatifid, ſomewhat lyrate, unequally cut; ſmooth and dark-green above; cottony and very white beneath. Flowers in axillary ſimple leafy ſpikes or cluſters, erect, or divaricated, ovate, ſeſſile, downy. Tubular florets ſeveral, 5-cleft, purpliſh, furniſhed with 5 ſtamina and a cloven piſtillum, and ſurrounded by 5 awl-ſhaped female flowers which conſtitute the radius. Receptacle naked. Seeds angular, without down or wing.

The whole plant has a weak aromatic ſcent, and a ſlightly bitter flavour. Its medical virtues deſerve no notice.—There is a variety deſtitute of all redneſs about the ſtem or flowers, equally common with that we have delineated.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Feb. 1. 1802. Published by Jas. Sowerby, London.

PYRETHRUM maritimum.

Sea Feverfew.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Seeds* crowned with a membranous margin. *Cal.* hemiſphærical, imbricated with ſharpiſh ſcales, bordered with a membrane.

SPEC. CHAR. Leaves bipinnate, fleſhy, awnleſs; convex above; keeled beneath. Crown of the ſeeds lobed.

SYN. Pyrethrum maritimum. *Sm. Fl. Brit.* 901.

Matricaria maritima. *Linn. Sp. Pl.* 1256. *Lightf.* 491. *With.* 736. *Hull.* 184.

M. inodora γ. *Hudſ.* 373.

Chamæmelum maritimum perenne humilius, foliis brevibus craſſis, obſcurè virentibus. *Dill. in Raii Syn.* 186. *t.* 7. *f.* 1.

OUR ſpecimen of this rare plant was gathered by the late John Adams, Eſq. in the looſe ſand of the ſhore of Manorbia bay, about 6 miles from Pembroke. Mr. Robſon has favoured us with others from Durham. It is perennial, and flowers about July or Auguſt.

Several ſtems, various in length, ſpread on the ground, forming a ſort of tuft, being thickly clothed with leaves, though not much branched. They are ſmooth, ſhining, moſtly purpliſh. Leaves ſeſſile, doubly pinnate, of a rather dark and ſhining green, fleſhy; the ſegments ſhort, blunt, deſtitute of any terminal awns, convex above, and more ſo beneath. Flowers terminal, ſolitary, not quite ſo large as thoſe of *P. inodorum*, *t.* 676. Calyx ſmooth, its ſcales bordered with a very narrow blackiſh membrane. Diſk convex, yellow, broader in proportion to the radius than in *P. inodorum*, from which ſpecies this ſtill more eſſentially differs in having the crown of the ſeed divided into 3 or 4 lobes. The whole herb is ſlightly aromatic, and unqueſtionably diſtinct from *P. inodorum*, with which Hudſon confounds it.

G.R. III.

Published by J. Sowerby, London.

ANTHEMIS nobilis.

Common Chamomile.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* chaffy. *Seeds* ſcarcely bordered. *Cal.* hemiſphærical, nearly equal. *Florets* of the radius more than 5, oblong.

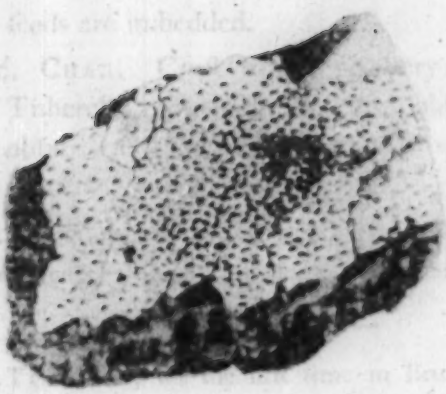
SPEC. CHAR. Leaves doubly pinnate, thread-ſhaped, acute, a little downy. Scales of the receptacle membranous, ſcarcely ſo long as the florets.

SYN. Anthemis nobilis. *Linn. Sp. Pl.* 1260. *Sm. Fl. Brit.* 904. *Hudſ.* 373. *With.* 739. *Hull.* 188. *Sibth.* 258. *Woodv. Med. Bot. t.* 103.

Chamæmelum odoratiſſimum repens, flore ſimplici. *Raii Syn.* 185.

THE fragrant Chamomile, ſo uſeful as a ſtomachic medicine, is not generally met with wild. We gathered this ſpecimen a little to the ſouth of Loweſtoft church, Suffolk, in Auguſt laſt. It always grows on gravelly open commons, ſpreading cloſe to the earth, and forming conſiderable patches among the ſhort herbage of ſuch places. When not in flower its ſcent betrays it if trodden upon. This quality has induced ſome curious people to plant Chamomile for a green walk in gardens, for which purpoſe it is recommended by great beauty and richneſs of foliage, but receives injury from being walked on in froſty weather.

Root perennial, ſtrong. Stems proſtrate, branched, villous. Leaves bipinnate, hairy or downy; leaflets ſlender, cylindrical, entire or lobed. Flowers terminal, ſolitary, white with a yellow diſk, which in time becomes conical. Seeds very obſcurely margined. Scales of the receptacle lanceolate, thin, not riſing above the florets. The whole plant is intenſely bitter, with a peculiar but agreeable ſmell. In gardens it is generally double, the florets of the diſk being all like thoſe of the radius; but ſuch flowers are not reckoned ſo ſtrong in flavour as the natural ones.



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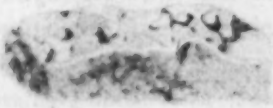
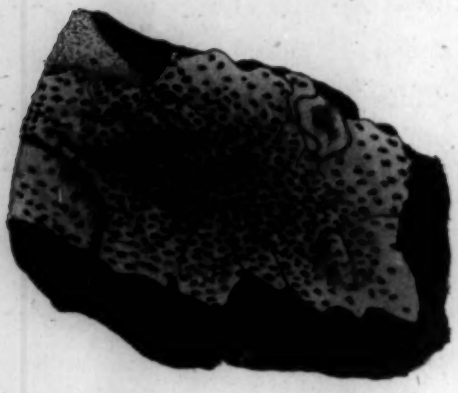




Pub. as directed by the Royal Society, London.

LICHEN impolitus.

Unpoliſhed Lichen.

CRYPTOGAMIA Algæ.

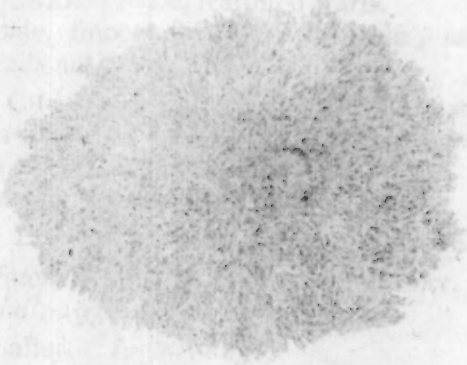
GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

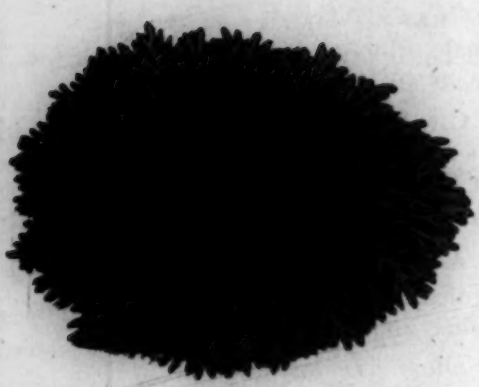
SPEC. CHAR. Cruſt white, powdery and cracked. Tubercles numerous, depreſſed, oblong, irregular, obtuſe, yellowiſh-brown, clothed with deciduous mealineſs, without any border.

SYN. Lichen impolitus. *Achar. Prod.* 56.
Verrucaria impolita. *Hoffm. Fl. Germ. v.* 2. 172.

GATHERED, for the firſt time in Britain, by Mr. D. Turner, on the trunks of trees at Bowton near Barton, Norfolk. A ſpecimen ſent by Dr. Schrader proves this to be the *L. impolitus* of the German botaniſts, and therefore it ought to be what Dr. Acharius has ſo denominated; but his deſcription of the ſhields as "margined and at length black," induces a ſuſpicion of his having confounded with this our *L. lynceus*, *t.* 809, a very diſtinct ſpecies.

L. impolitus has a very white thin inſeparable cruſt, mealy and cracked, not ſmooth. Innumerable tubercles are regularly diſperſed over it, which when young are ſunk rather below the ſurface, and ſeemingly bordered by the cruſt, but have no real border of their own. Their form is oblong, obtuſe, curved, ſometimes very ſhort and roundiſh; in advanced age they project. They are of a yellowiſh brown or dull orange hue; but that colour is remarkably concealed by a white mealineſs which renders them ſcarcely diſtinguiſhable from the cruſt, but which is eaſily rubbed off, and then the tubercles are very evident.





Pub. 1. 1802. Published by Jas. Sowerby, London.

LICHEN aquilus.

Sun-burnt Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

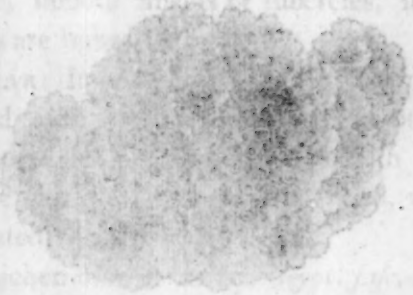
SPEC. CHAR. Imbricated, ſomewhat cartilaginous; its ſegments linear, many-cleft, convex, incurved at the edge, of a dull tawny brown; ſhaggy beneath. Shields dark brown.

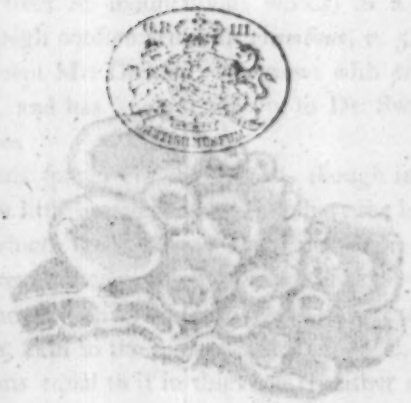
SYN. Lichen aquilus. *Achar. Prod.* 109.
L. fuſcus. *Hudſ.* 533. *Dickſ. H. Sicc. faſc.* 6. 25. *Hull.* 293.
L. pullus. *Lightf.* 825.
L. obſcurus. *With. v.* 4. 28.
Lichenoides anguſtifolium fuſcum, ſcutellis pullis. *Dill. Muſc.* 175. *t.* 24. *f.* 69.

FOUND on expoſed rocks about Edinburgh by Lightfoot; in North Wales by the Rev. H. Davies; and in Cornwall by Mr. Turner and Mr. Sowerby. It is a rare ſpecies, apparently but little known on the continent.

The fronds are entangled and imbricated, forming broadiſh uninterrupted patches, but looſely fixed to the rocks by the fibrous brown radicles that clothe their under ſides, and in dry weather ſtarting from them and becoming very brittle. They are linear, various in breadth, though always narrow compared with moſt ſpecies, repeatedly forked and laciniated, convex (their edges being inflexed), ſmooth, of a tawny brown or ſun-burnt hue, very pale towards their extremities. Shields numerous, not large, dark-brown, with a thick, inflexed, rugged or crenate border of the colour and ſubſtance of the frond.

We have heſitated which name out of the four ſynonyms to retain. *Fuſcus*, the oldeſt, has been generally neglected; *pullus* has been given to many other Lichens. Either of theſe however would have been eligible, as being included in the ſynonym of Dillenius, had not Dr. Acharius choſen a new and perhaps happier denomination.





Feb. 1. 1802. Published by Jas Sowerby, London

LICHEN affinis.

Thinner ſpongy Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

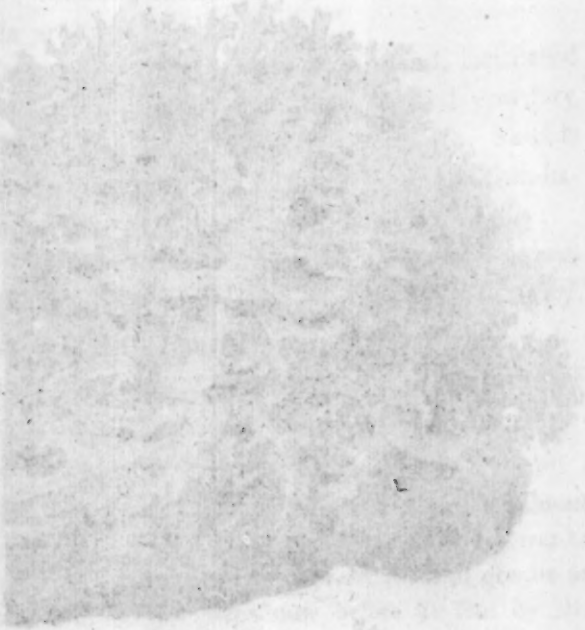
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

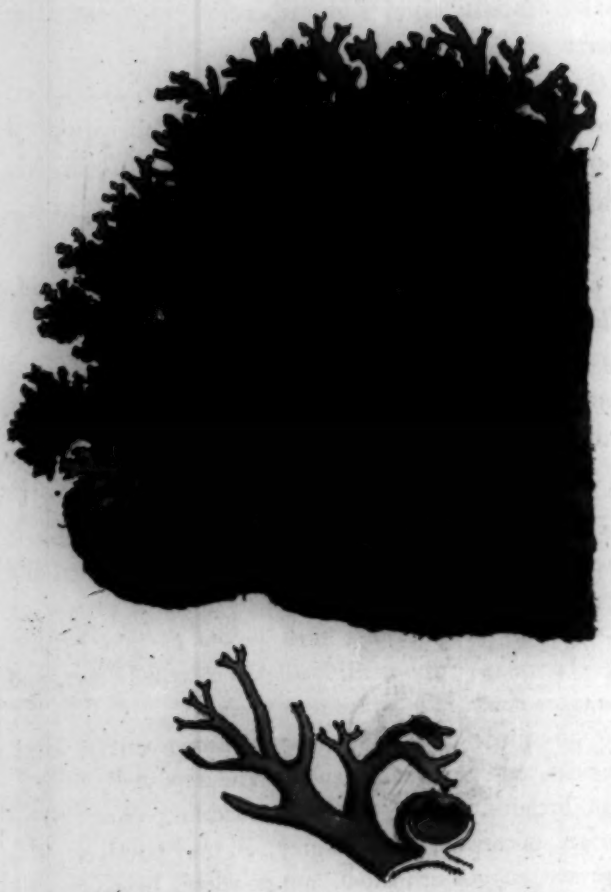
SPEC. CHAR. Imbricated, depreſſed; ſegments bluntly lobed and notched, greyiſh, ſmooth, concave, white-edged; clothed beneath with dark blueiſh denſe fibres. Shields ruſty-coloured, with whitiſh, elevated, crenate margins.

SYN. Lichen affinis. *Dickſ. Crypt. faſc.* 4. 24. *t.* 12. *f.* 6.

WE have long known this Lichen (which is found on the trunks of trees in mountainous woods) as a moſt diſtinct ſpecies, though confounded with *plumbeus*, *v.* 5. *t.* 353, by all authors except Mr. Dickſon. It grows with *plumbeus*, but is more rare, and has a great affinity to Dr. Swartz's tropical *L. pannoſus*.

The fronds ſpread circularly, and, though imbricated, are flat, and but little elevated in any part above the bark or decayed moſs on which they grow. Their numerous ſegments are ſmooth, grey, concave, blunt, with a ſilvery-white edge, and clothed beneath with an uniform woolly coat of tangled blueiſh-black fibres, akin to the ſpongy under ſide of *L. plumbeus*, but by no means equal to it in thickneſs; neither are theſe fibres ſo denſe, woolly, or prominent as in *L. pannoſus*. The central part of the plant is often powdery. The ſhields are numerous, larger than thoſe of *plumbeus*, of a reddiſh cheſnut, and rendered conſpicuous by their elevated, crenate, inflexed border, of the ſame poliſhed whitiſh or ſilvery grey as the edges of the frond.





Feb. 1. 1812. Published by Jas Sowerby, London.

LICHEN furfuraceus.

Branny Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Leafy, leathery, decumbent, laciniated and forked; convex, greeniſh-grey and powdery above; concave, rugged and black beneath. Shields ſcattered, inflated, reddiſh-brown, with a thin inflexed edge.

SYN. Lichen furfuraceus. *Linn. Sp. Pl.* 1612. *Hudſ.* 539. *With. v.* 4. 56. *Hull.* 297. *Lightf.* 832. *Achar. Prod.* 173.

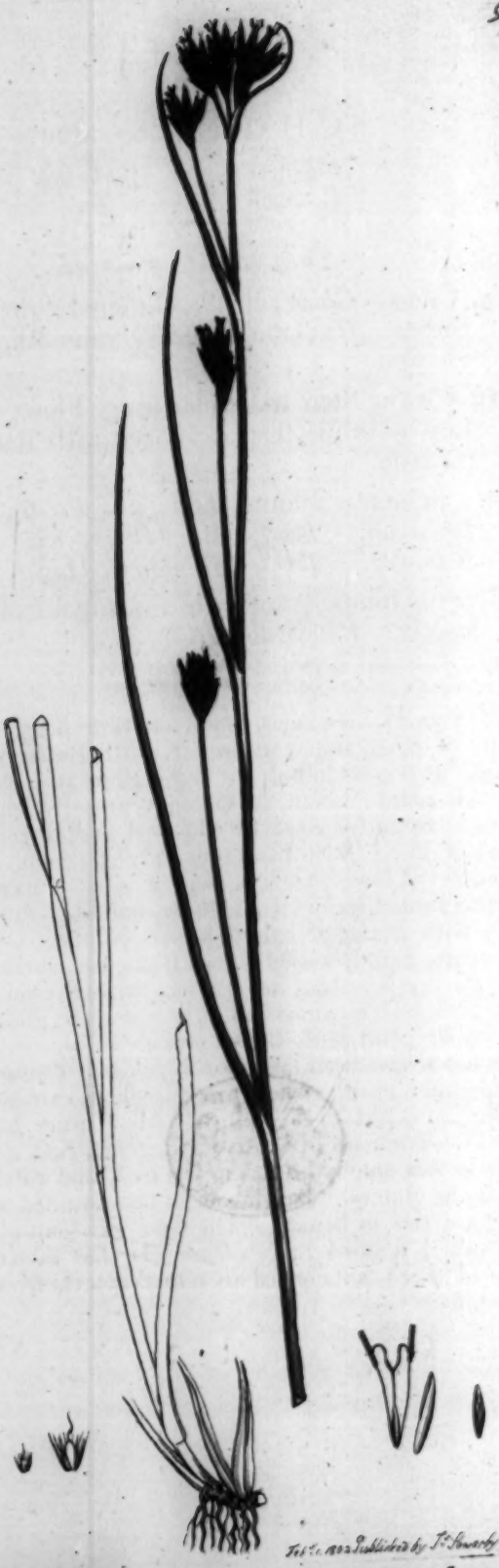
Lichenoides cornutum amarum, supernè cinereum infernè nigrum. *Dill. Muſc.* 157. *t.* 21. *f.* 52.

LICHEN furfuraceus is to be found in the moſt mountainous counties only, and there not frequently. It grows on the trunks of trees, old pales, &c., but ſeems to prefer rocks of granite or ſandy grit, as in the ſpecimens now before us ſent by the Rev. Mr. Harriman. The fructification is extremely rare, and ſeveral authors confeſs they have never ſeen it.

The fronds grow looſely ſpreading or decumbent in large roundiſh tufts, and are much branched and repeatedly forked, various in breadth, ending in ſharp reddiſh points. The upper ſurface is convex, greeniſh-grey, all over powdery; the under concave, rugged or plaited, not powdery, black, having in many parts a blue or purpliſh tinge. Shields attached to the upper ſurface, elevated, concave or inflated, with a thin inflexed edge; their diſk is brown; their outſide grey and mealy like the fronds.

Profeſſor Hoffmann in his *Plantæ Lichenoſæ t.* 9. *f.* 2. gives an excellent repreſentation of the plant in a dry ſtate.

G.R. III.



Pub. 1. 1802 Published by J. Sowerby London.

SCHŒNUS albus.

White-headed Bog-ruſh.

TRIANDRIA Monogynia.

GEN. CHAR. *Glumes* chaffy, cluſtered; the outer ones barren. *Cor.* none. *Seed* 1, roundiſh, among the glumes.

SPEC. CHAR. Stem triangular, leafy. Flowers cluſtered. Leaves briſtle-ſhaped. Seed with ten briſtles at the baſe.

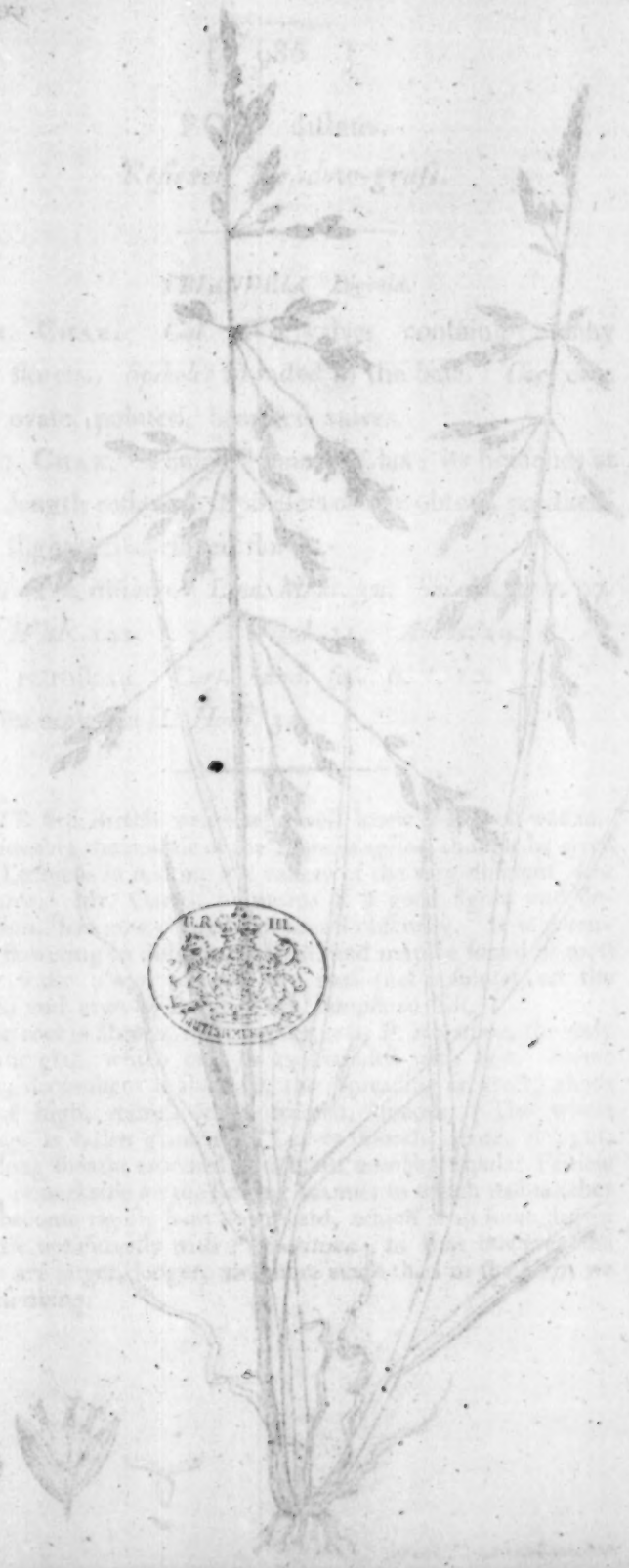
SYN. Schœnus albus. *Linn. Sp. Pl.* 65. *Sm. Fl. Brit.* 46. *Hudſ.* 16. *With.* 81. *Hull.* 12. *Relh.* 17. *Abbot.* 10. *Dickſ. H. Sicc. faſc.* 1. 2.

Cyperus minor paluſtris hirſutus, paniculis albis paleaceis. *Raii Syn.* 427.

THIS pretty *Schœnus* is found on turfy bogs, but is rare except in mountainous countries. Mr. Borrer ſent it from Suſſex. It flowers in July or Auguſt, and is perennial.

Whole plant ſmooth, as Dillenius properly remarks under the above faulty ſynonym by which it is diſtinguiſhed in his edition of Ray. Stem from 6 to 12 inches high, erect, leafy, triangular. Leaves ſetaceous, with a tubular ſheathing baſe. Flowers in ſmall, terminal or axillary, ſtalked cluſters. Glumes white, with a tinge of reddiſh brown, poliſhed, oblong, concave, acute, ſlightly keeled. Seed triangular, ſurrounded with 10 rough briſtles about its own length, and crowned by the cloven ſtyle which extends but little above the glumes.

A ſimilar plant with brown glumes is occaſionally found, which has always been taken for *S. fuſcus* of Linnæus; whoſe own ſpecimen having alſo a triangular ſtem, convinced me the two ſpecies ought to be united. Mr. Turner however has pointed out a remark in Ehrhart's *Beiträge, faſc.* 4. 155, that *S. fuſcus* has only 3 briſtles to the ſeed, and a ſtyle twice as long as the glumes. It remains to be examined whether we really have this in Britain. The ſame excellent obſerver firſt found only 2 ſtamina in *S. albus*. He has moreover in the ſame book, *p.* 48, anticipated my remarks on the fruit of *S. mariſcus, t.* 950.



Pl. 1. was Published by J. Sowerby.

POA diſtans.

Reflexed Meadow-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the baſe. *Cor.* of 2 ovate, pointed, beardleſs valves.

SPEC. CHAR. Panicle branched, lax; its branches at length reflexed. Spikelets of five obtuſe, poliſhed, ſlightly five-ribbed florets.

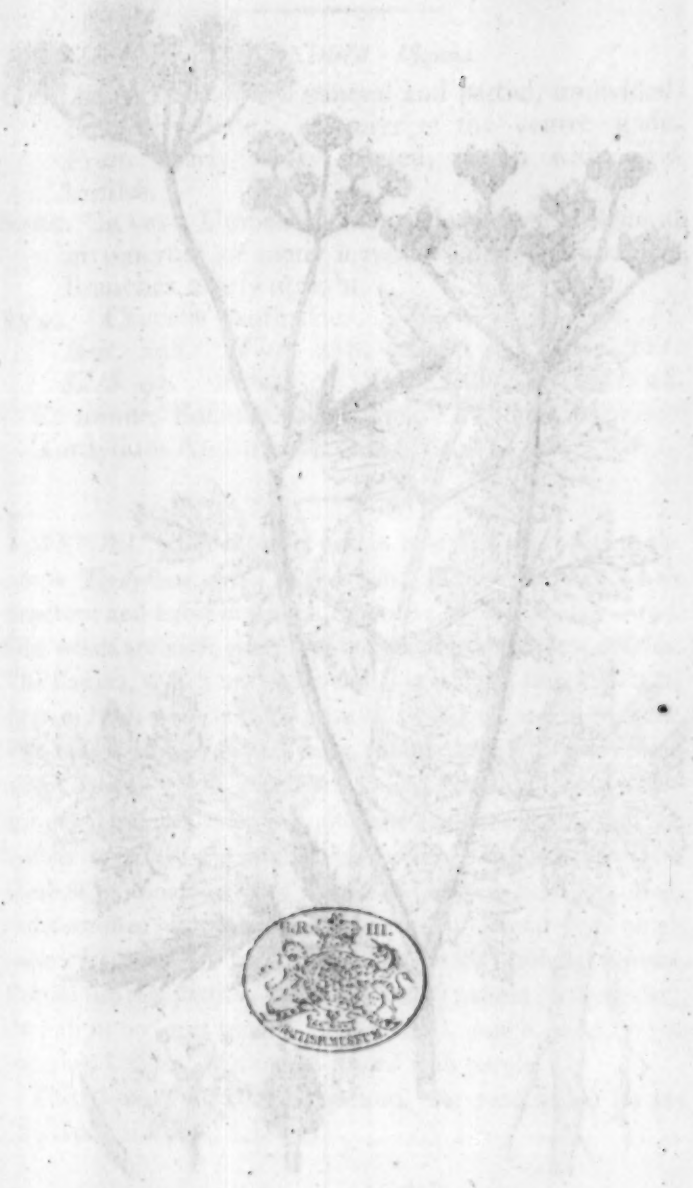
SYN. Poa diſtans. *Linn. Mant.* 32. *Sm. Fl. Brit.* 97. *With.* 141. *t.* 25. *Hull.* 21. *Abbot.* 19.

P. retroflexa. *Curt. Lond. faſc.* 6. *t.* 10.

Aira aquatica β. *Hudſ.* 34.

THE firſt Britiſh writer who well knew this graſs was unqueſtionably the author of the *Flora Anglica*, though he erred with Linnæus in making it a variety of the very different *Aira aquatica*. Mr. Curtis, by means of a good figure and deſcription, has now cleared it from all obſcurity. It is perennial, flowering in July and Auguſt, and may be found in moſt ſandy waſte places towards the coaſt (not abſolutely on the beach) and even by the road up Hampſtead hill.

The root is fibrous, not creeping as in *P. maritima*, the only Engliſh graſs which can be confounded with this. Stems many, decumbent at the baſe, then ſpreading or erect, about a foot high, round, leafy, ſtriated, ſmooth. The whole herbage is rather glaucous. Leaves ſmooth, acute, ſtraight, with long ſheaths crowned by a blunt notched ſtipula. Panicle erect, remarkable for the ſtriking manner in which its branches ſoon become rigidly bent downward, which is in ſome degree the caſe occaſionally with *P. maritima*; in that however the florets are larger, longer, and more acute than in the plant we are deſcribing.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Pl. 47. 1792. Published by J. Sowerby London.

CAUCALIS Anthriſcus.

Upright Hedge Parſley.

PENTANDRIA Digynia.

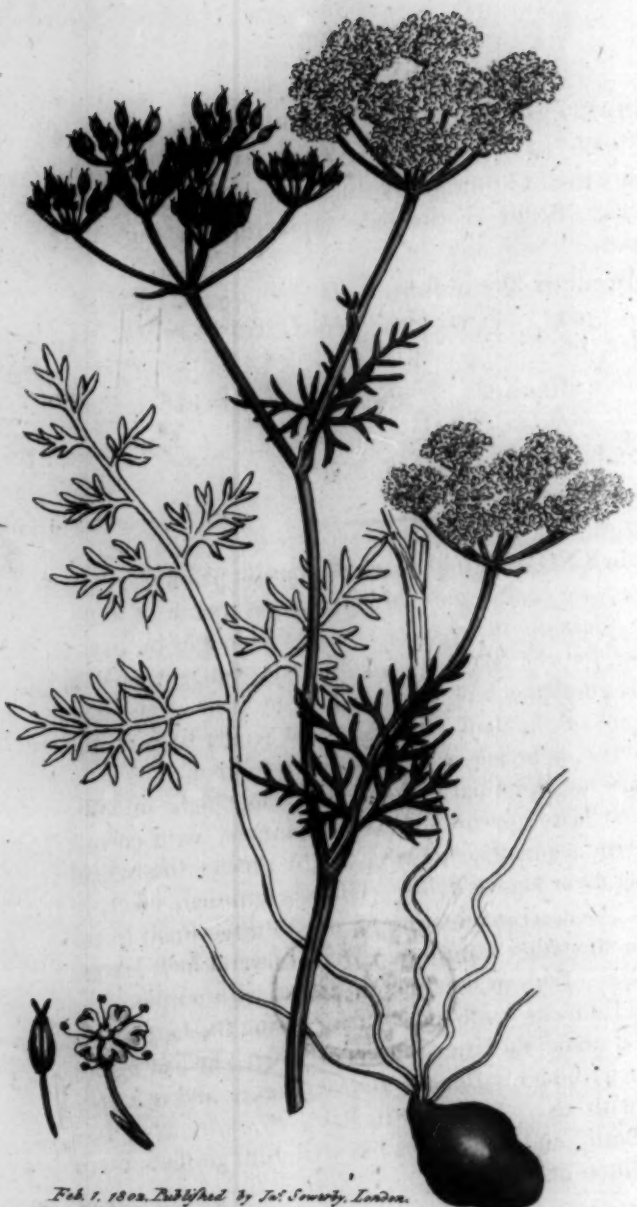
GEN. CHAR. *Involucra* general and partial, undivided. *Corollæ* radiate. *Flowers* of the centre male. *Fruit* nearly oval, ſtriated, rough with rigid briſtles.

SPEC. CHAR. Umbels of many cloſe rays. General involucrum of many leaves. Leaflets pinnatifid. Branches nearly upright.

SYN. Caucalis Anthriſcus. *Hudſ.* 114. *Sm. Fl. Brit.* 298. *With.* 288. *Hull.* 59. *Relh.* 111. *Sibth.* 93. *Abbot.* 59. *Curt. Lond. faſc.* 6. *t.* 22.
C. minor, floſculis rubentibus. *Raii Syn.* 219.
Tordylium Anthriſcus. *Linn. Sp. Pl.* 346.

LINNÆUS undoubtedly errs in referring this plant to the genus *Tordylium*. Its briſtly ſeeds, abortive flowers, whole ſtructure and habit make it a *Caucalis*; ſee *v.* 3. *t.* 197—199. Few weeds are more general in hedges and the borders of fields. The flowers, which are either white or reddiſh, are moſt abundant in July, and the ſeeds plentiful in Auguſt and September. The root is annual and tapering. Stem erect, 2 or 3 feet high, rough with cloſely depreſſed briſtles, dividing into ſeveral nearly upright branches. Leaves alternate, bipinnate, rough; the leaflets oppoſite, cut and ſerrated; the terminal one longeſt. Umbels terminal, erect, of numerous rays, but little ſpreading, and furniſhed with a ſhort involucrum of ſeveral ſharp rough entire leaves; the partial involucrum is ſimilarly formed. Partial umbels flattiſh, denſe. Flowers radiant (or irregular), though in no great degree. Fruit ſmall, rough, with ſimple incurved briſtles, its ſummit tinged with purple.

This *Caucalis* is neither noxious, nor remarkable for any properties of known utility.



Feb. 1. 1802. Published by Jas. Sowerby, London.

BUNIUM flexuoſum.

Common Earth-nut.

PENTANDRIA Digynia.

GEN. CHAR. *Involucra* general and partial. *Corolla* uniform. *Umbels* denſe. *Fruit* ovate.

SPEC. CHAR. General involucrum of ſcarcely three leaves. Stem at the baſe tapering, zigzag, and naked.

SYN. Bunium flexuoſum. *With.* 291. *Sm. Fl. Brit.* 301. *Sym.* 70. *Hull.* 60. *Sibth.* 94. *Abbot.* 60.

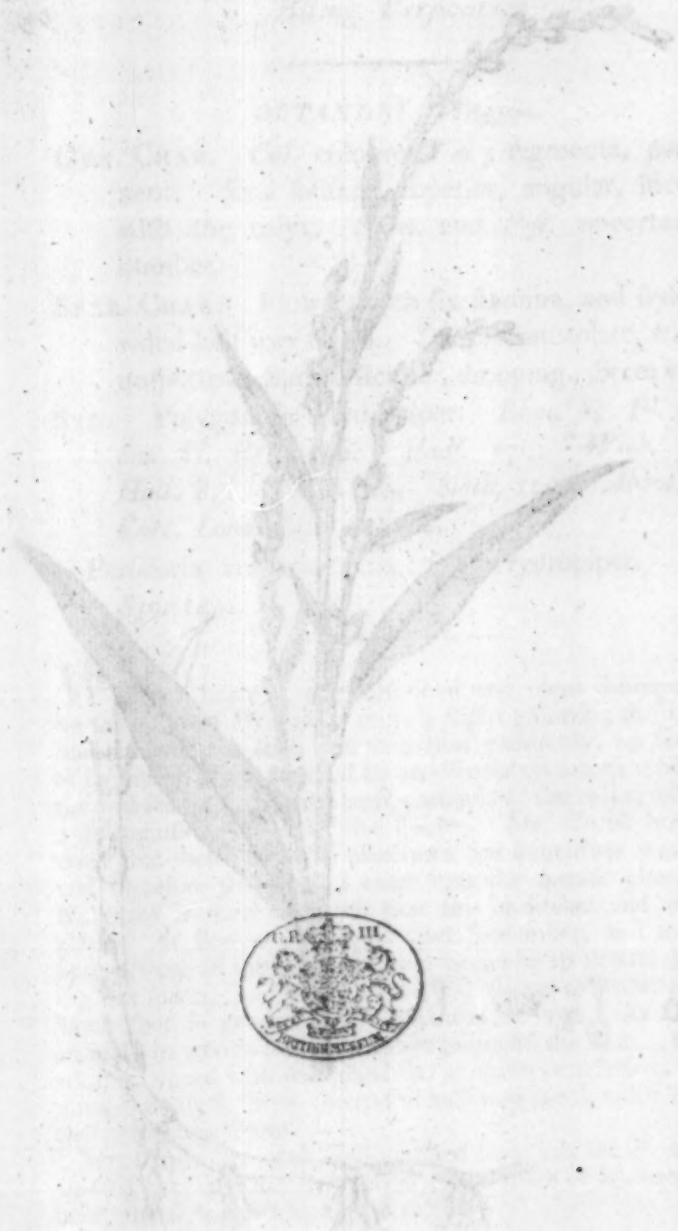
B. Bulbocaſtanum. *Hudſ.* 122. *Relh.* 118. *Curt. Lond. faſc.* 4. *t.* 24.

Bulbocaſtanum. *Raii Syn.* 209.

A WELL-KNOWN inhabitant of gravelly paſtures, whoſe white flowers are conſpicuous throughout the month of June, and whoſe roundiſh fleſhy roots are eagerly ſought by boys; leſs perhaps for the ſake of their ſweetiſh pungent flavour, than for the amuſement of tracing them to their deep ſituation by means of the ſlender tapering and tender baſis of the ſtem. If this clue be loſt, it is not eaſily recovered.

Theſe roots are perennial. Stem about a foot high, ſmooth, branched and leafy upward. Leaves tripinnate, with narrow linear uniform ſegments, ſmooth, bright green; the radical ones on long taper zigzag ſtalks. Umbels terminal, erect, of many rays. General involucrum of one to three ſmall linear leaves, often altogether wanting; partial of ſeveral ſuch leaves. Petals regular. Fruit ovate, ſmooth, tipped with purple.

Although Linnæus confounded this with the *Bulbocaſtanum majus* of old authors, the latter appears to be what he had before him when deſcribing his *Bunium Bulbocaſtanum*, and is a very rare plant with us. Dillenius in Ray's *Synopſis*, 209, has mentioned both, and Dr. Stokes has well diſtinguiſhed them in the 2d edition of Withering.



Feb.1.1802 Published by J.Sowerby London

POLYGONUM Hydropiper.

Biting Perſicaria.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 ſegments, permanent. *Seed* ſolitary, ſuperior, angular, inveſted with the calyx. *Stam.* and *Piſt.* uncertain in number.

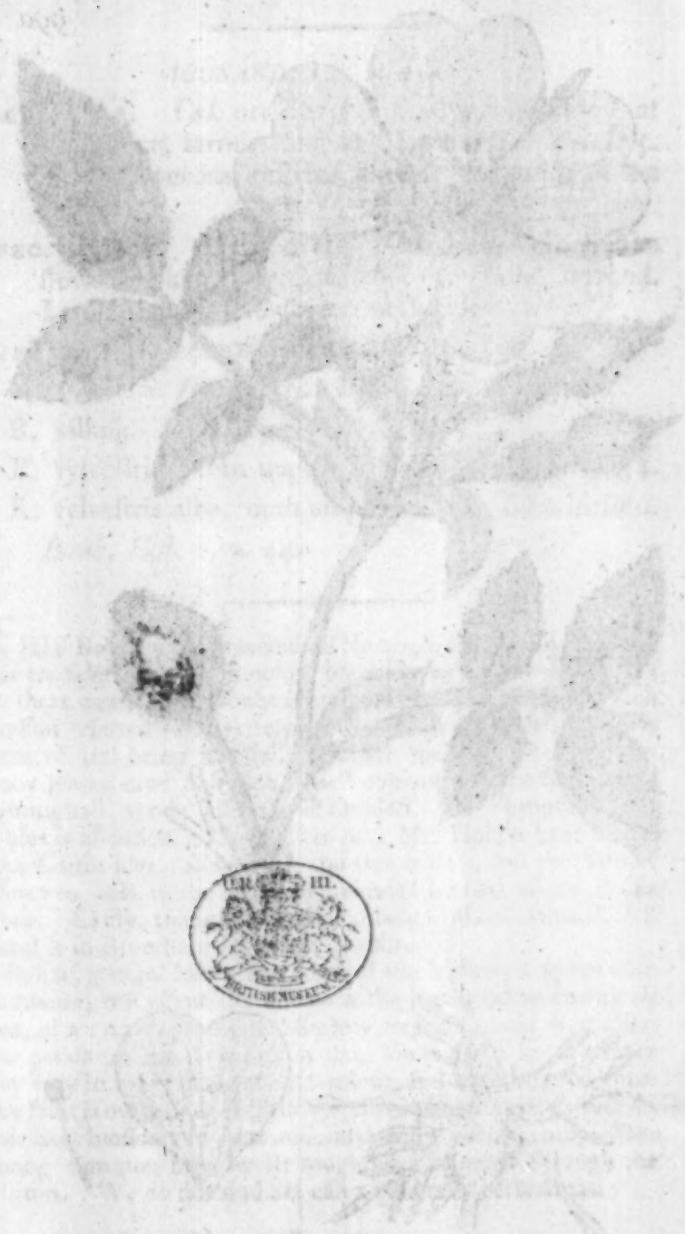
SPEC. CHAR. Flowers with ſix ſtamina, and ſtyle divided half way down. Leaves lanceolate, waved, unſpotted. Spikes ſlender, drooping. Stem erect.

SYN. Polygonum Hydropiper. *Linn. Sp. Pl.* 517. *Sm. Fl. Brit.* 426. *Hudſ.* 170. *With.* 379. *Hull.* 85. *Relh.* 160. *Sibth.* 129. *Abbot.* 89. *Curt. Lond. faſc.* 1. *t.* 26.

Perſicaria vulgaris acris, ſeu Hydropiper. *Raii Syn.* 144.

WE have lately (*t.* 955) deſcribed one plant diſtinguiſhed by the name of *Hydropiper* on very ſlight grounds; the preſent had obtained the ſame denomination previouſly, on account of its pungent taſte, cauſed by an eſſential oil which reſides in the dots ſcattered over the herb, particularly the calyx, forming a diſtinguiſhing mark of the ſpecies. Mr. Curtis however notes that theſe glandular punctures are ſometimes wanting, and therefore they cannot enter into the ſpecific character. No plant is more common than this in ditches and watery places. It flowers in Auguſt and September, and may be known from all the other common ſpecies by its ſlender drooping lax ſpikes, its light-green leaves, always deſtitute of the black ſpot ſo general in *P. Perſicaria*, *t.* 756. Its root is annual, in whorls from the lower joints of the ſtem. Calyx whitiſh, tipped with red, glandular as above mentioned. Stamina, 6 rarely 8. Style cloven full half-way down, rarely three-cleft. Stigmas blunt.

Mr. Curtis firſt well diſtinguiſhed from this the *P. minus*, whoſe leaves are flat (not waved), ſtem more or leſs procumbent, and ſtyle ſcarcely at all divided.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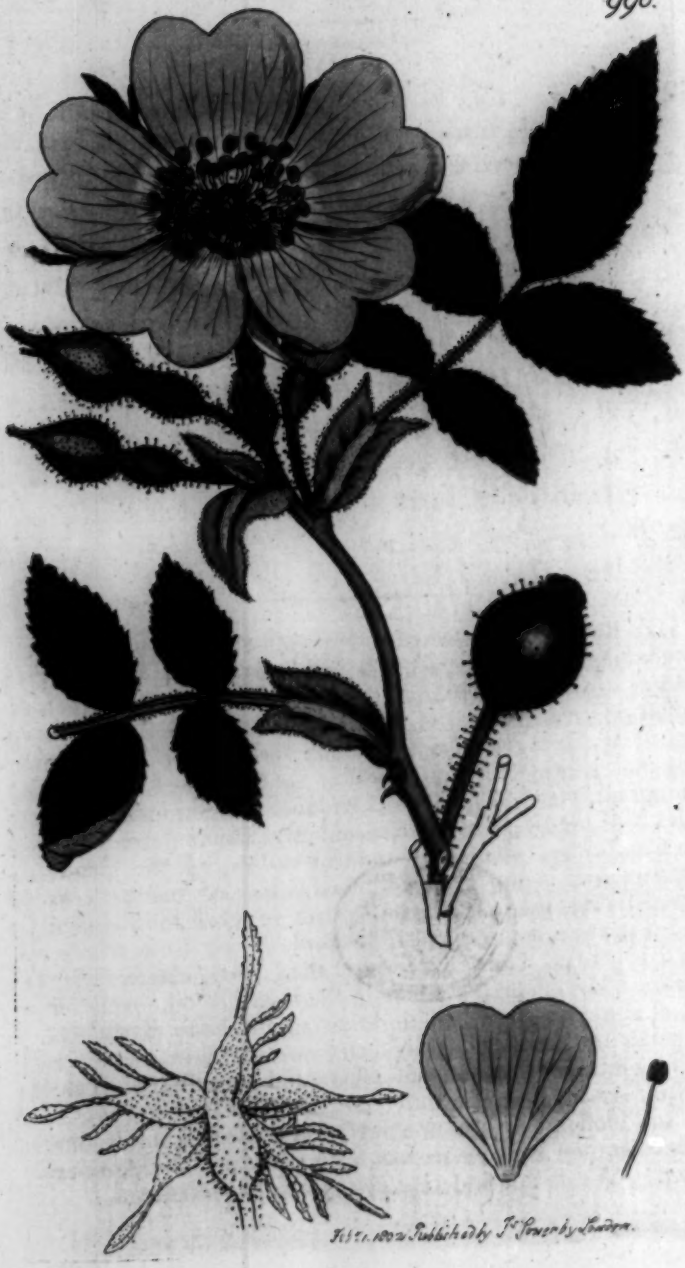


Pubd. 1802 by J. Sowerby London.

ROSA tomentoſa.

Downy-leaved Dog-roſe.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-ſhaped, fleſhy, contracted at the orifice, terminating in 5 ſegments. *Petals* 5. *Seeds* numerous, briſtly, fixed to the inſide of the calyx.

SPEC. CHAR. Fruit ovate, briſtly as well as the flower-ſtalks. Prickles of the ſtem hooked. Leaflets ovate, downy on both ſides.

SYN. Roſa tomentoſa. *Sm. Fl. Brit.* 539.

R. villoſa β. *Hudſ.* 219. *With.* 466. *Hull.* 111.

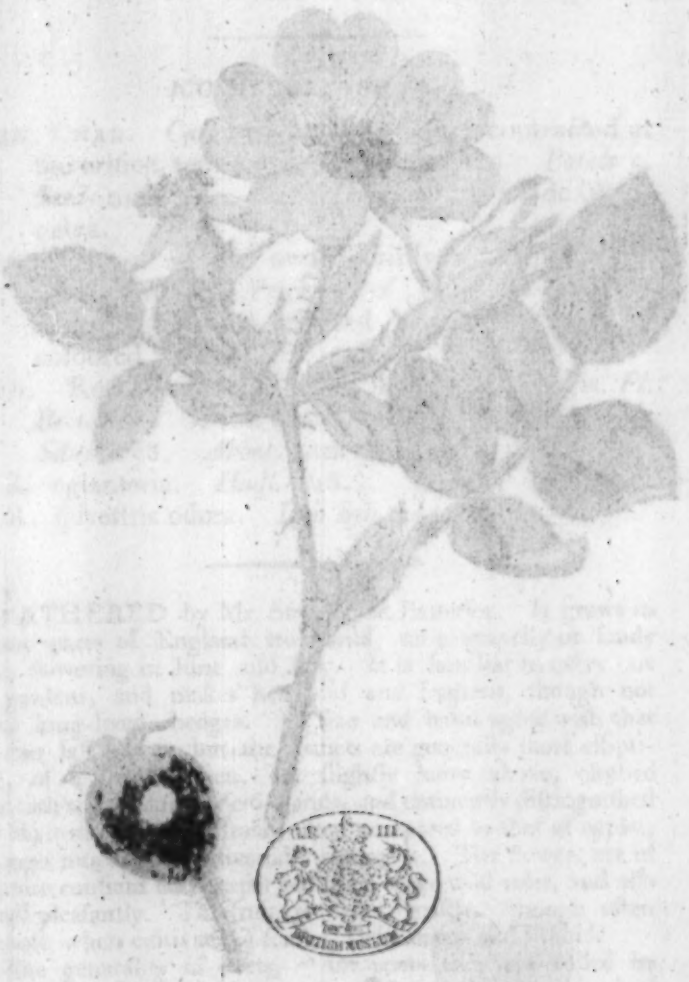
R. villoſa. *Relh.* 194. *Sibth.* 159?

R. ſylveſtris fructu majore hiſpido. *Raii Syn.* 454.

R. ſylveſtris alba, cum aliquo rubore, folio hirſúto. *Baub. Hiſt. v.* 2. 44.

THIS Roſe, when detected at Norwich about 20 years ago, was conſidered by the London botaniſts as a new diſcovery; yet there can be little doubt of its being the plant of Ray which Hudſon referred (as a variety) to *R. villoſa*; ſtill leſs doubt is there of its being a totally diſtinct ſpecies. It grows in many places near Norwich, moſt copiouſly in the ſequeſtered Arminghall wood; alſo about London. In Shropſhire and Wales it abounds. Mr. Relhan and Mr. Holme have ſent it from Cambridge, along with the true *villoſa*, but the former aſſures us this is the plant he intended by that name in his *Flora*. Laſtly, the much lamented lady of Lord John Ruſſell found it in Bromham lane near Bedford.

In ſize, general habit, and form of the leaflets, it agrees with *R. canina*, but eſſentially differs in the leaves being downy all over, of a greyiſh green, and ſlightly fragrant, as in *R. villoſa*. The petals are almoſt white in their lower part; in the upper they vary in every ſhade of roſe-colour, and are a little odorous. The fruit is ovate, ſcarlet, briſtly, quite unlike that of *R. villoſa*. This Roſe bloſſoms in June and July; and the fruit, conſpicuous among common heps by its roughneſs, remains through the autumn. We do not find the calyx generally permanent.


BRITISH MUSEUM

March 1.1802 Published by J.& Sowerby, London.

ROSA rubiginoſa.

Sweet Briar, or Eglantine.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-ſhaped, fleſhy, contracted at the orifice, terminating in 5 ſegments. *Petals* 5. *Seeds* numerous, briſtly, fixed to the inſide of the calyx.

SPEC. CHAR. Fruit ovate, briſtly as well as the flower-ſtalks. Prickles of the ſtem hooked. Leaflets elliptical, clothed beneath with ruſty-coloured glands.

SYN. Roſa rubiginoſa. *Linn. Mant.* 2. 564. *Sm. Fl. Brit.* 540. *With.* 466. *Hull.* 111. *Relh.* 193. *Sibth.* 158. *Abbot.* 110.

R. eglanteria. *Hudſ.* 218.

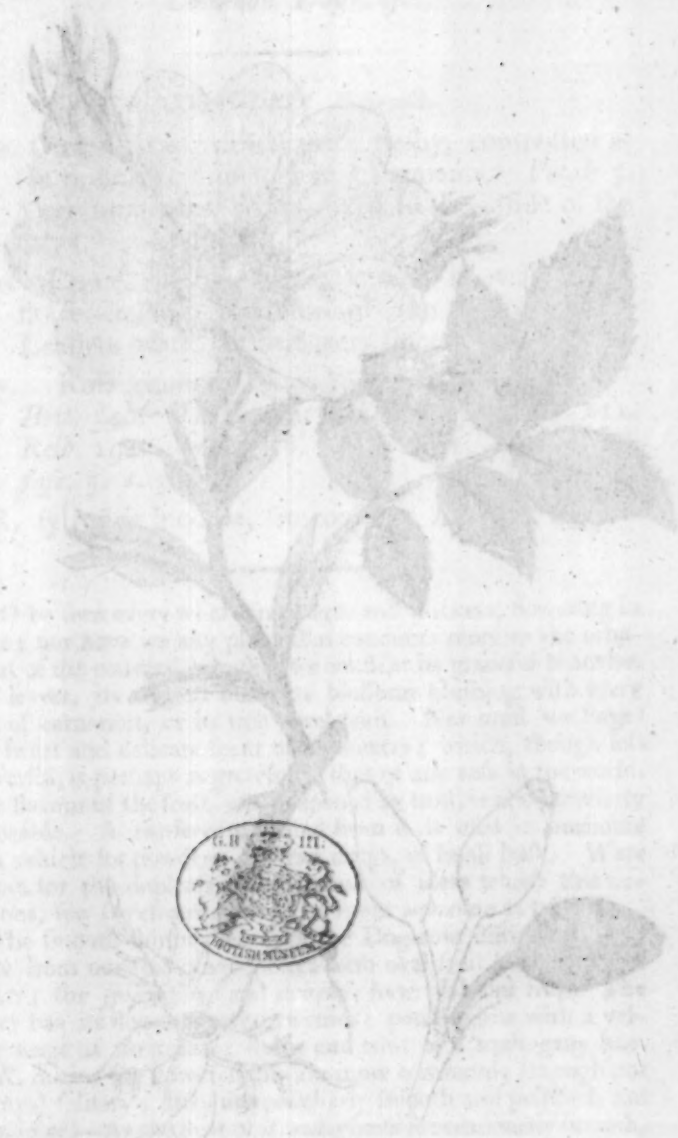
R. ſylveſtris odora. *Raii Syn.* 454.

GATHERED by Mr. Sowerby at Batterſea. It grows in many parts of England truly wild, on a gravelly or ſandy ſoil, flowering in June and July. It is familiar to every one in gardens, and makes beautiful and fragrant, though not very long-lived, hedges. Its ſize and habit agree with that in our laſt plate; but the leaflets are generally more elliptical, of a bright green, but ſlightly hairy above, clothed beneath with reddiſh viſcid glands, and eminently diſtinguiſhed by their moſt fragrant ſmell, often compared to that of apples, though much more univerſally agreeable. The flowers are of a more conſtant and deeper red than other wild roſes, and alſo ſmell pleaſantly. The fruit is ovate, briſtly, (though often ſmooth when cultivated,) ſcarlet, farinaceous and inſipid.

The generality of poets, "for poets they are called by themſelves and their admirers," confound the woodbine and the eglantine, but they err with Milton. Shakſpeare, though generally charged with this fault, is clear of it; at leaſt the paſſage in queſtion is moſt probably to be read thus—

> "So doth the woodbine, the ſweet honeyſuckle,
> "Gently entwiſt the maple."

See Johnſon and Steevens's Shakſpeare, vol. v. 121.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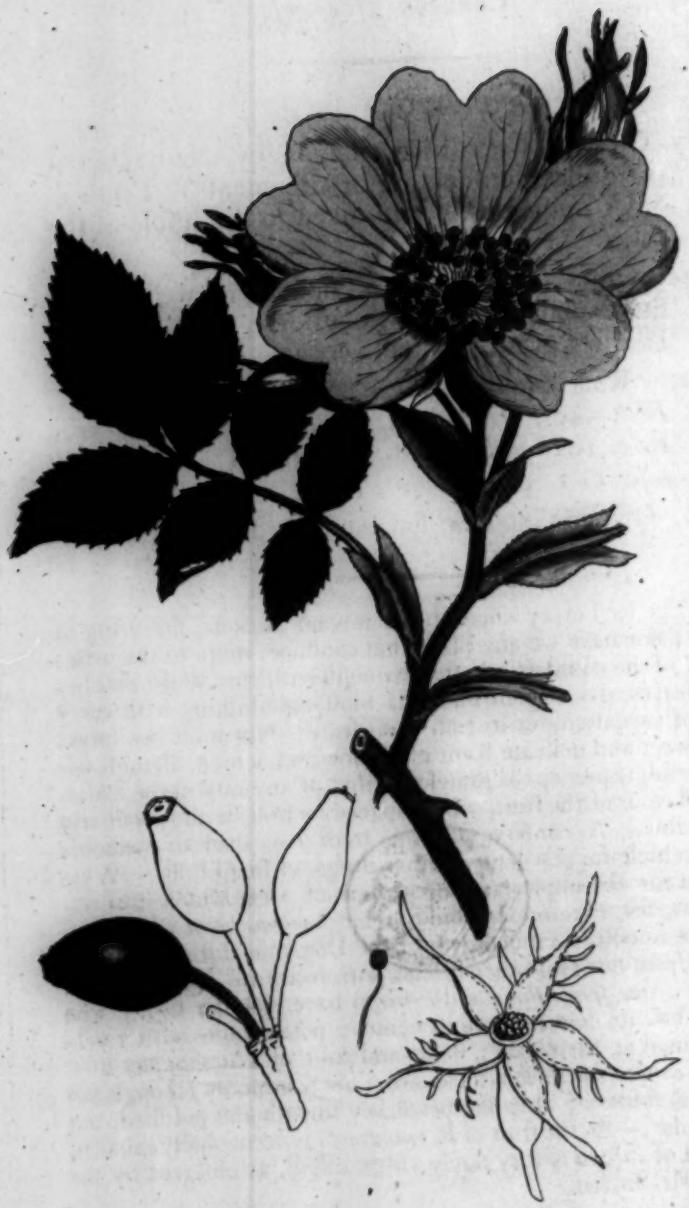


Febr. 1802. Published by J. Sowerby London.

ROSA canina.

Common Dog-roſe.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* urn-ſhaped, fleſhy, contracted at the orifice, terminating in 5 ſegments. *Petals* 5. *Seeds* numerous, briſtly, fixed to the inſide of the calyx.

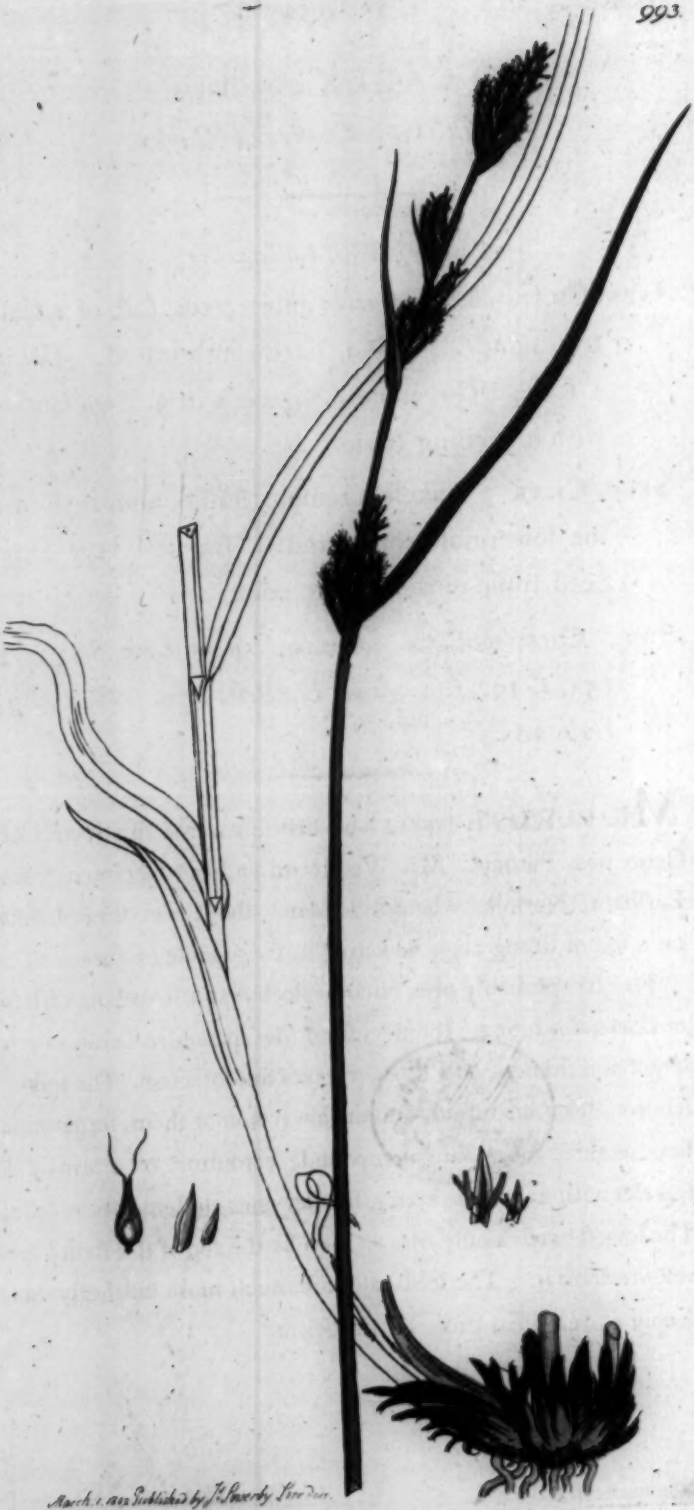
SPEC. CHAR. Fruit ovate, ſmooth as well as the flower-ſtalks. Prickles of the ſtem hooked. Leaflets ovate, pointed, very ſmooth.

SYN. Roſa canina. *Linn. Sp. Pl.* 704. *Sm. Fl. Brit.* 540. *Hudſ.* 219. *With.* 467. *Hull.* 111. *Relh.* 194. *Sibth.* 158. *Abbot.* 111. *Curt. Lond. faſc.* 5. *t.* 34.

R. ſylveſtris inodora, ſeu canina. *Raii Syn.* 454.

TO be ſeen every where in hedges and thickets, flowering in June; nor have we any plant that conduces more to the ornament of the country, whether we conſider its graceful branches and leaves, its elegant buds, its bloſſoms bluſhing with every tint of carnation, or its rich coral fruit. Nor muſt we forget the ſweet and delicate ſcent of its flowers; which, though leſs powerful, is perhaps as grateful as that of any roſe in the world. The flavour of the fruit, when ripened by froſt, is alſo peculiarly agreeable. A conſerve prepared from it is uſed in medicine as a vehicle for powders, or other drugs, of ſmall bulk. Were it not for the unpleaſant aſſociation of ideas which this occaſions, few ſweetmeats would be more welcome at table.

The ſmooth ſhining leaves of the Dog-roſe diſtinguiſh it at once from our two other ſpecies with oval fruit, ſee the 2 laſt plates; the *ſpinoſiſſima* and *arvenſis* have globular fruit. The latter has its flowers more in cymes; petals white with a yellow tinge at their baſe; ſtems and fruit of a mahogany hue. In *R. canina* the flower-ſtalks are more commonly (though not always) ſolitary; they are peculiarly ſmooth and poliſhed, not glandular.—As the fruit of *R. rubiginoſa* is occaſionally ſmooth, ſo that of *canina* is very rarely a little hiſpid, as obſerved by the Rev. Mr. Sutton.



March 1. 1822 Published by J.t Sowerby Lond.r

CAREX axillaris.

Axillary Cluſtered Carex.

MONOECIA Triandria.

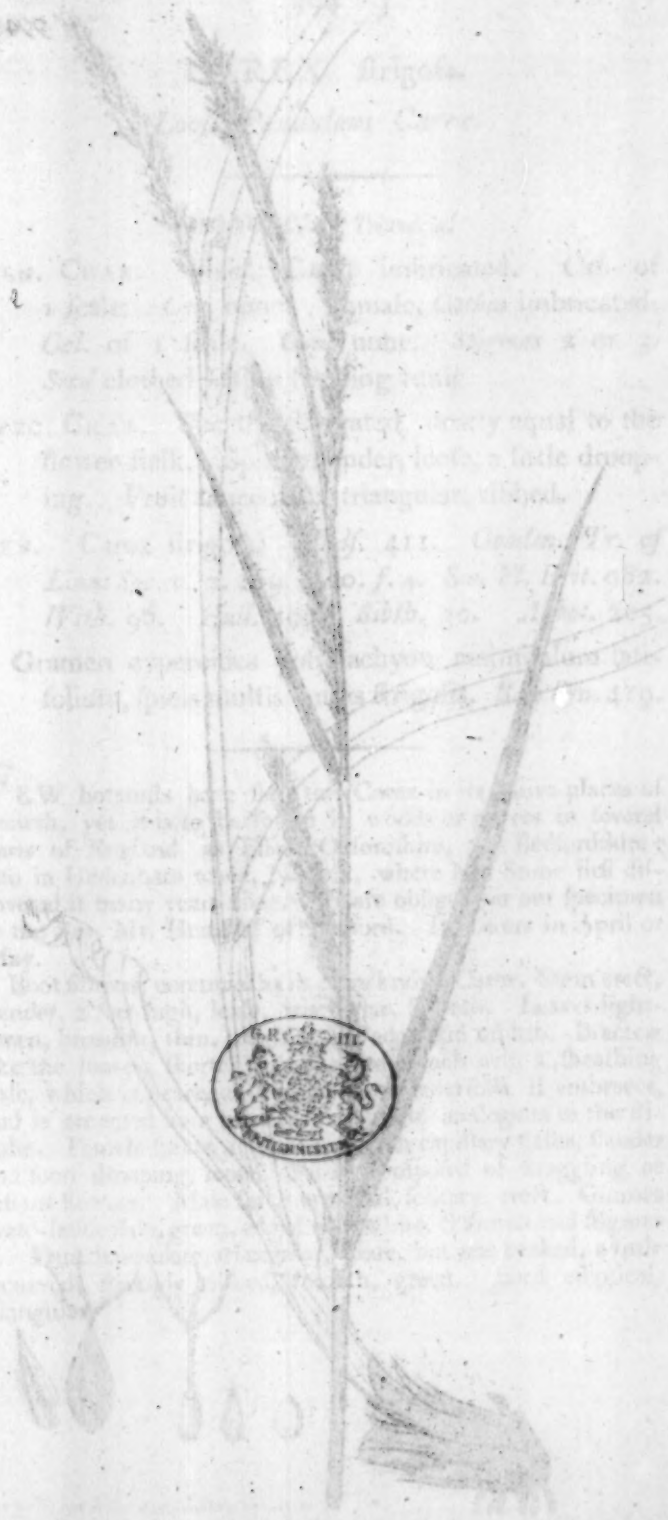
GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

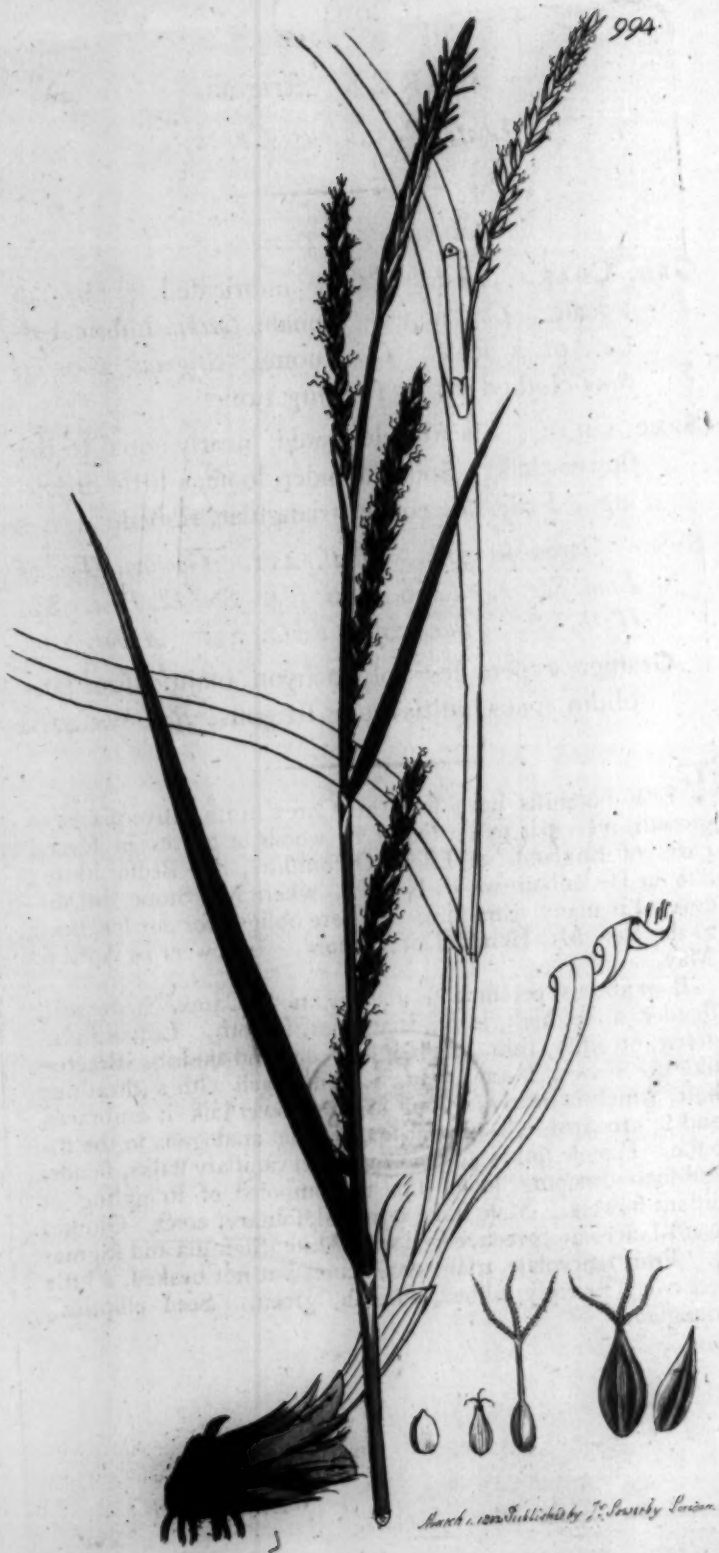
SPEC. CHAR. Spikelets remote, ſeſſile, androgynous; the lowermoſt compound. Bracteæ very long. Seed-tunic cloven at the point.

SYN. Carex axillaris. *Gooden. Tr. of Linn. Soc. v.* 2. 151. *t.* 19. *f.* 1. *Sm. Fl. Brit.* 970. *With.* 89. *Hull.* 205.

MR. CURTIS is ſaid to have firſt diſcovered this ſpecies of Carex near Putney. Mr. Woodward ſent our ſpecimen from Earſham, Norfolk, where it is found about wet ditch banks on a ſoil of ſtrong clay, flowering in the middle of June.

This has probably been often neglected as a luxuriant variety of *C. remota*, *t.* 832. It differs from that ſpecies in being much larger and ſtouter, with broader leaves and bracteæ. The ſpikelets are alſo more turgid, and the lowermoſt of them, ſometimes two or three more, are compound, conſiſting of a principal ſpikelet with 2, 3, 4 or even 5 ſmaller ones cluſtered at the baſe. The loweſt bractea only riſes as high as the top of the ſtem; the reſt are ſhorter. The ſeed-caſes are much more diſtinctly and deeply cloven than thoſe of *C. remota*.





March 1. 1802. Published by J.T. Serres, Soho.

CAREX ſtrigoſa.

Looſe Pendulous Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

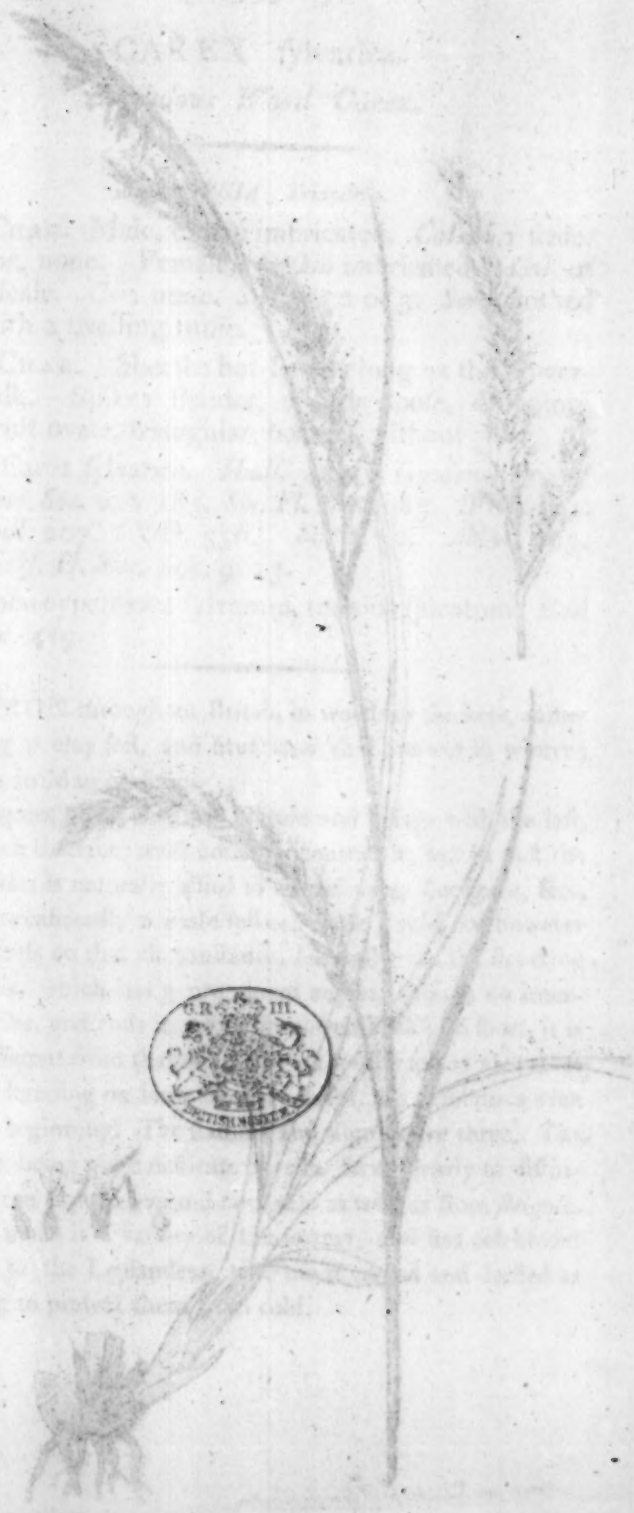
SPEC. CHAR. Sheaths elongated, nearly equal to the flower-ſtalk. Spikes ſlender, looſe, a little drooping. Fruit lanceolate, triangular, ribbed.

SYN. Carex ſtrigoſa. *Hudſ.* 411. *Gooden. Tr. of Linn. Soc. v.* 2. 169. *t.* 20. *f.* 4. *Sm. Fl. Brit.* 982. *With.* 96. *Hull.* 206. *Sibth.* 30. *Abbot.* 205.

Gramen cyperoides polyſtachyon majuſculum latifolium, ſpicis multis longis ſtrigoſis. *Raii Syn.* 419.

FEW botaniſts have ſeen this Carex in its native places of growth, yet it is to be found in woods or groves in ſeveral parts of England, as Eſſex, Oxfordſhire, and Bedfordſhire; alſo in Hedenham wood, Norfolk, where Mr. Stone firſt diſcovered it many years ſince. We are obliged for our ſpecimen to the Rev. Mr. Hemſted of Bedford. It flowers in April or May.

Root fibrous, perennial as in every known Carex. Stem erect, ſlender, 2 feet high, leafy, triangular, ſmooth. Leaves light-green, broadiſh, thin, rough on the edge and midrib. Bracteæ like the leaves, ſhorter than the ſtem, each with a ſheathing baſe, which is nearly as long as the flowerſtalk it embraces, and is crowned by a tubular membrane analogous to the ſtipulæ. Female ſpikes 4, 5, or more, on capillary ſtalks, ſlender and ſoon drooping, looſe, that is, compoſed of ſtraggling or diſtant flowers. Male ſpike terminal, ſolitary, erect. Glumes ovato-lanceolate, green, edged with white. Stamina and ſtigmas 3. Fruit lanceolate, triangular, acute, but not beaked, a little recurved, ſtrongly ribbed, ſmooth, green. Seed elliptical, triangular.



March 1802 Published by J. Sowerby London.

CAREX ſylvatica.

Pendulous Wood Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 ſcale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a ſwelling tunic.

SPEC. CHAR. Sheaths but half as long as the flower-ſtalk. Spikes ſlender, a little looſe, drooping. Fruit ovate, triangular, beaked, without ribs.

SYN. Carex ſylvatica. *Hudſ.* 411. *Gooden. Tr. of Linn. Soc. v.* 2. 183. *Sm. Fl. Brit.* 983. *With.* 102. *Hull.* 207. *Relh.* 356. *Sibth.* 30. *Abbot.* 205. *Dickſ. H. Sicc. faſc.* 9. 13.

Gramen cyperoides ſylvarum, tenuiùs ſpicatum. *Raii Syn.* 419.

COMMON throughout Britain in woods or thickets, rather preferring a clay ſoil, and ſituations that are wet in winter; flowering in May or June.

This agrees much in habit, ſtature and foliage with the laſt, with which therefore moſt botaniſts contraſt it; but in fact the *C. ſylvatica* is naturally allied to *C. veſicaria, lævigata*, &c., and has occaſionally 2 male ſpikes. We would not however lay any ſtreſs on that circumſtance, but rather on the ſtructure of its fruit, which has 3 prominent angles, though no intermediate ribs, and ends in a longiſh cloven beak; in ſhort, it is totally different from that of *C. ſtrigoſa.*—The ſpikes are rather lax, and, ſtanding on long capillary ſtalks, are pendulous even from the beginning. The ſtamina and ſtigmas are three. The ſeed-caſes being quite deſtitute of ribs ſerve clearly to diſtinguiſh it from *C. veſicaria* and *lævigata* as well as from *ſtrigoſa*. Linnæus made it a variety of the former, and has celebrated its utility to the Laplanders, who uſe it carded and dreſſed as a wadding to protect them from cold.

CAREX *sylvatica*.

Wood Carex.

GEN. CHAR. Male. Calyx imbricated. Cal. of 1 scale. Cor. none. Female. Calyx imbricated. Cal. of 1 scale. Cor. none. Stigmas 2 or 3. Seed clothed with a swelling tunic.

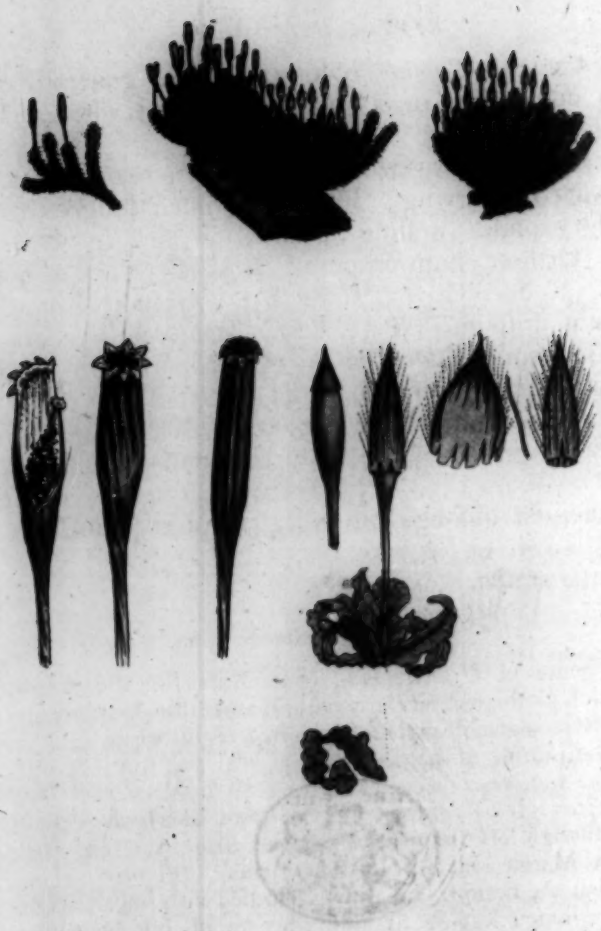
SPEC. CHAR. Sheaths but half as long as the flower. Spikes slender, a little loose, drooping. Fruit ovate, triangular, beaked, without ribs.

SYN. Carex *sylvatica*. Huds. 401. Gooden. 272. 9.
Linn. Spec. 2. 1383. Sm. Fl. Brit. 983. Eng. Bot. 101.
Hull. 201. Relh. 356. Sibth. 320. Abbot. 205.
Dick. H. Sicc. fasc. 9. 13.
Gramen cyperoides sylvarum, tenuiis spicatum. Ruii. Syn. 419.

COMMON throughout Britain in woods or thickets, rather preferring a dry soil, and situations that are wet in winter; flowering in May or June.

This agrees much in habit, stature and foliage with the last, with which therefore most botanists confound it; but in fact the C. *Sylvatica* is naturally allied to *Cyperoides*, *Laevigata*, &c., and has occasionally a male spike. We would not however lay any stress on that circumstance, but rather on the structure of its fruit, which has 3 prominent angles, though no intermediate rib, and ends in a long cloven beak; in short, it is totally different from that of *Cyperoides*.—The spikes are rather lax, and, standing on long capillary stalks, are pendulous even from the beginning. The stamina and pistils are three. The seed-case being quite destitute of ribs serves clearly to distinguish it from *C. Sylvatica* and *laevigata* as well as from *Cyperoides*. Linnæus made it a variety of the former, evidently the celebrated botanist was utility to the Laplanders, who use it matted and dried as swadling to protect them from cold.

P.R. III.
BRITISH MUSEUM



March 1. 1802 Published by Jas. Sowerby, London.

ORTHOTRICHUM crispum.

Curled Orthotrichum.

CRYPTOGAMIA Musci.

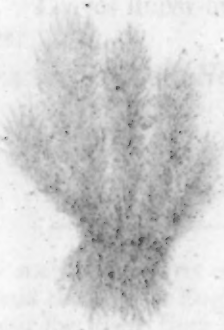
GEN. CHAR. *Capsule* oblong. *Fringe* generally of a double row of teeth. *Veil* clothed with erect hairs.

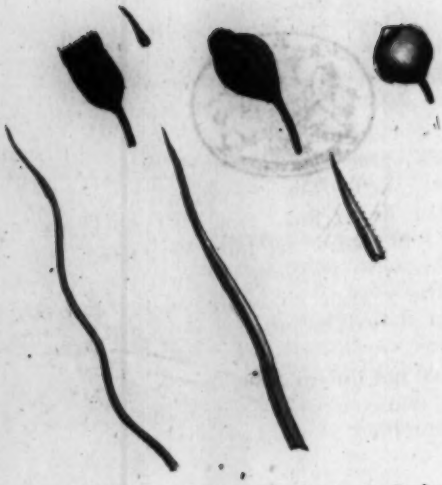
SPEC. CHAR. Leaves crowded, linear; recurved and waved by drying. Fruit-stalk much longer than the capsule, swelling upward.

SYN. Orthotrichum crispum. *Hedw. Crypt. v.* 2. 96. *t.* 35. *Swartz. Act. Holm. ann.* 1795. 247.
Bryum crispum. *With.* 827. *Abbot.* 236.
B. striatum δ. *Linn. Sp. Pl.* 1580.
Polytrichum striatum δ. *Hudſ.* 471.
P. capillaceum. *Hull.* 249.
P. capillaceum crispum, calyptris acutis piloſiſſimis. *Dill. Muſc.* 433. *t.* 55. *f.* 11.
P. capſulis oblongo-rotundis, calyptris piloſiſſimis. *Raii Syn.* 91.
Weiſſia criſpa. *Sibth.* 287.

THE genus of *Orthotrichum*, characterized by the upright hairs which clothe its veil, is as natural and distinct as any one in the whole vegetable system; and it is high time to put an end to the jumble of names, both generic and specific, with which this and other species have been encumbered.

O. crispum grows on the trunks of trees in several parts of Britain, though less frequently than the *striatum*. The fruit ripens in March and April. The stems form tufts, being branched at the bottom, and thickly clothed with linear, acute, entire, carinated leaves, straight when moist, but becoming waved and recurved when dry, which last is its specific mark; and to this may be added the length of the fruit-stalk, which is much greater than in other species. Capsule with 8 strong furrows; its orifice fringed with 8 pairs of recurved external teeth, and with 8 internal capillary incurved simple teeth. We can find no more, though Hedwig describes 16. The hairs of the veil are finely jointed.





March 1. 1802. Published by Jas. Sowerby, London.

BARTRAMIA Halleriana.

Lateral Bartramia.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ſpherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-ſtalks lateral, curved, ſhorter than the leaves. Leaves linear-awlſhaped, without lateral nerves.

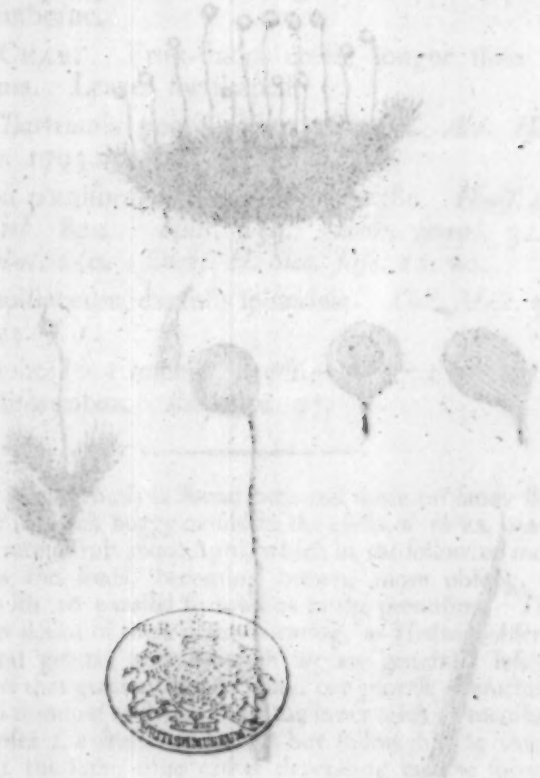
SYN. Bartramia Halleriana. *Hedw. Crypt. v.* 2. 111. *t.* 40. *Swartz. Act. Holm. ann.* 1795. 268.

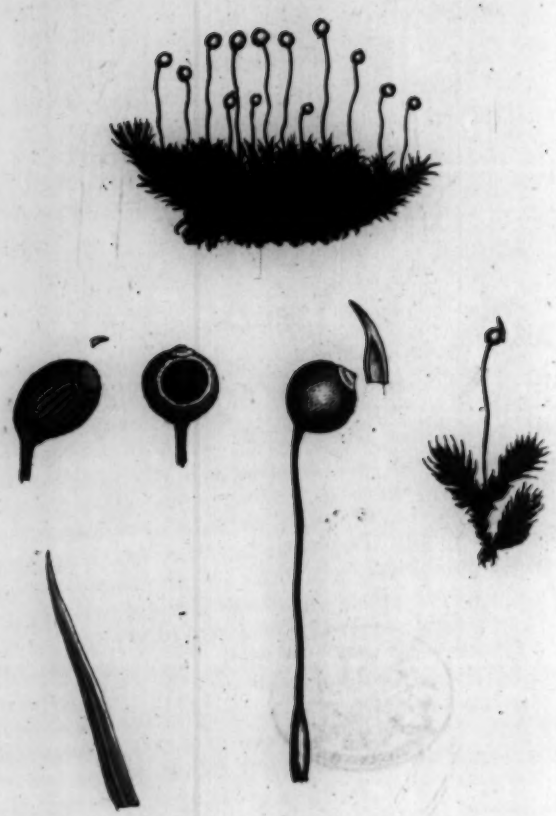
Bryum laterale. *Hudſ.* 483. *Lightf.* 727. *With.* 823. *Hull.* 254. *Dickſ. H. Sicc. faſc.* 5. 20.

FOUND in the moiſt ſtony parts of mountainous woods in Scotland, Wales, and the north of England, but not commonly. Mr. Griffith ſent our ſpecimens from Wales in July 1800, at which ſeaſon the ſeeds are for the moſt part ripe.

This moſs forms broad patches of denſe, upright, branched ſtems, near two inches high, and entirely clothed from top to bottom with leaves, which are a little more inclined to one ſide than the other. The lower part of the ſtems is alſo clothed with denſe brown woolly radicles. The leaves ſuddenly taper from a broad baſe into a linear-awlſhaped ſlender figure, ſerrated at the edge, and ſharply keeled, having one ſtrong nerve only. The flowers, whether terminal or not occaſionally, appear to be truly lateral and axillary; for ſeveral capſules are found one above another on an unbranched ſtem, each on a curved ſtalk, proceeding from the *axilla* of a leaf, and ſhorter than the leaf itſelf. The unripe capſule is globoſe. Veil deciduous. Lid ſhort and broad. The capſule ſoon becomes lengthened, or rather laterally contracted, into a cylindrical form, marked with 16 ſtrong furrows, and its margin is fringed with the ſame number of awlſhaped flattiſh teeth, ſurrounding an internal plaited membranous covering, a little torn at its opening.

We would not diſſent from the above great authorities as to the ſpecific name, but the original one, *lateralis*, ſeems much the moſt expreſſive.





March 1. 1801. Published by Jas. Sowerby, London.

BARTRAMIA pomiformis.

Apple Bartramia.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ſpherical, at length furrowed. *Outer fringe* of 16 tapering teeth; *inner* a plaited membrane.

SPEC. CHAR. Fruit-ſtalks erect, longer than the ſtems. Leaves awlſhaped.

SYN. Bartramia pomiformis. *Swartz. Act. Holm. ann.* 1795. 268.

Bryum pomiforme. *Linn. Sp. Pl.* 1580. *Hudſ.* 474. *With.* 822. *Hull.* 259. *Relh. Suppl.* 3. 10. *Abbot.* 240. *Dickſ. H. Sicc. faſc.* 10. 20.

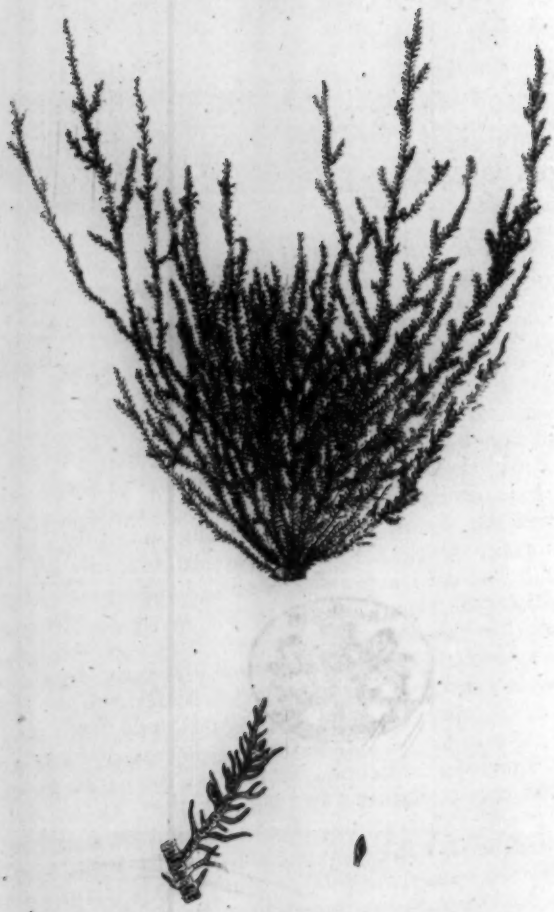
B. capillaceum, capſulis ſphæricis. *Dill. Muſc.* 339. *t.* 44. *f.* 1.

B. trichoides vireſcens, erectis majuſculis capitulis maliformibus. *Raii Syn.* 97.

THIS elegant moſs is found here and there on ſandy ſhady banks, or in black boggy mould in the clefts of rocks, bearing its green round fruit about April, which in the following month diſcharges the ſeeds, becoming brown, more oblong, and marked with 16 parallel furrows as in the preceding. There can be no doubt of theſe plants forming, as Hedwig obſerves, one natural genus; and although we are generally leſs diſpoſed than that great author to found our generic characters of moſſes on minutiæ of ſtructure in the inner teeth or membrane which cloſes the fruit, we cannot but follow him in this inſtance, at the ſame time rather depending on the ſpherical form, and regular furrows, of the capſule as an obvious and certain diſtinction. We ſuſpect one or two more ſpecies of *Bartramia* may be natives of Britain.

The ſtems of *B. pomiformis* are branched and form tufts, but are much ſhorter than in *B. Halleriana*; the leaves are more ſpreading, lanceolate, ſerrated chiefly towards the point, and not ſo ſuddenly contracted juſt above the baſe. Fruit-ſtalks red, at firſt terminal, but ſoon becoming axillary, riſing erect, high above the ſtems.

G.R. III.
BRITISH MUSEUM



March 1. 1802. Published by Jas Sowerby, London.

CONFERVA Mertenſii.

Mertenſian Conferva.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in round, ſolitary, cloſed tubercles, projecting from the frond, but united with it.

SPEC. CHAR. Frond much branched: branches oppoſite, pinnated; joints ſhort. Capſules minute, acorn-ſhaped, on ſhort ſtalks.

THE hiſtory of this new *Conferva* cannot be better expreſſed than in the words of Mr. Turner, to whom we are obliged for our ſpecimens.

"It was firſt found on the beach at Yarmouth by Mr. Wigg in the ſummer of 1799, and has ſince been occaſionally met with, though always in extremely ſmall quantities, by Mr. Maſon and myſelf. I have named it after my excellent correſpondent Profeſſor Mertens of Bremen, as well to bear a teſtimony to his unwearied zeal and extenſive knowledge of this genus, which he is now about to illuſtrate, as in token of my private reſpect. It cannot be confounded with any hitherto deſcribed ſpecies from the peculiarity of its habit, which bringing it very near to *Fucus Wiggii* makes it one of the many links that unite the two genera; and hence it belongs to Dr. Roth's intermediate genus *Ceramium*, which for the preſent we on many accounts decline adopting. *C. Mertenſii* is uſually about 3 inches high. Its ſmall ſolid root ſends forth many cylindrical pale-yellow ſtems, pinnated from their very origin, with ſhort, oppoſite, diſtichous, horizontal ſhoots, in general ſimple, ſometimes extending into new branches. Joints ſhort, cylindrical; *ſepta* darker, and thence conſpicuous. Whole plant pellucid, except the capſules, which are opaque, acorn-ſhaped, growing out of the ſmaller branches, on ſhort ſtalks, oppoſite or alternate, viſible only with a good glaſs. When dried this ſpecies reſembles moſt Hudſon's *C. gelatinoſa* β, *C. mutabilis* of Roth's *Catalecta*."

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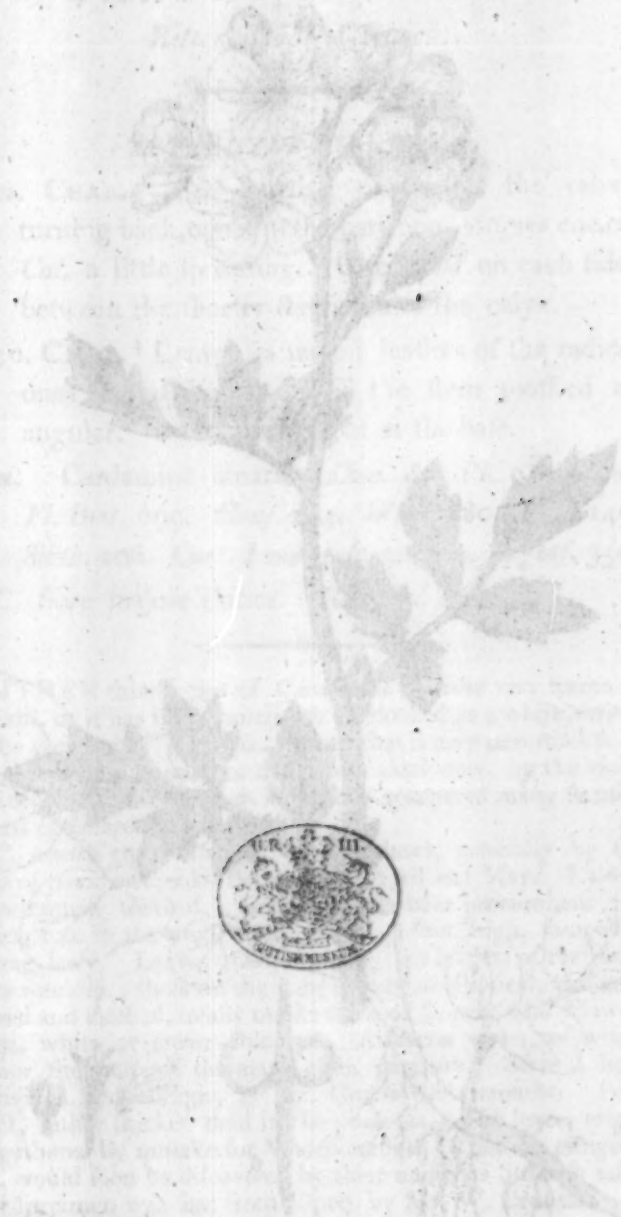
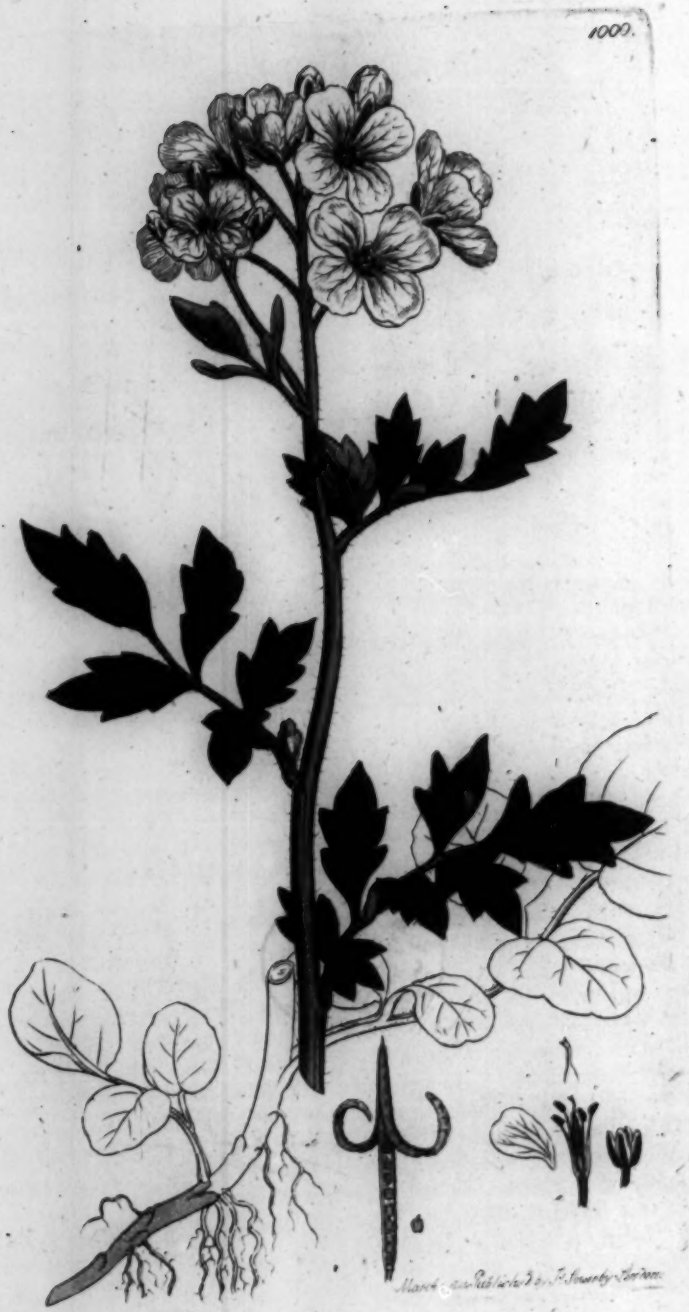

GEORGIUS III.
REX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CARDAMINE amara.

Bitter Ladies'-Smock.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* burſting elaſtically, the valves turning back, equal to the partition. *Stigma* entire. *Cal.* a little ſpreading. One *gland* on each ſide, between the ſhorter ſtamina and the calyx.

SPEC. CHAR. Leaves pinnate; leaflets of the radical ones roundiſh; thoſe of the ſtem toothed or angular. Stem taking root at the baſe.

SYN. Cardamine amara. *Linn. Sp. Pl.* 915. *Sm. Fl. Brit.* 699. *Hudſ.* 294. *With.* 580. *Hull.* 149. *Sibth.* 206. *Curt. Lond. faſc.* 3. *t.* 39. *Lightf.* 350.

C. flore majore elatior. *Raii Syn.* 299.

EITHER this ſpecies of *Cardamine* is really very ſcarce in Britain, or it has been ſometimes overlooked as a white variety of the common *C. pratenſis*. From that it may nevertheleſs be always diſtinguiſhed, on the moſt caſual view, by the violet hue of its antheræ. When accurately compared many deciſive points of difference will be found.

C. amara grows in very watery places, generally by the ſides of rivers or brooks, flowering in April and May. Its root is perennial, toothed. Stems at the baſe procumbent and taking root in the mud, then upright, a foot high, ſomewhat zigzag, leafy. Leaves nearly ſmooth; the leaflets of the lower ones roundiſh; thoſe on the ſtem oblong or elliptical, variouſly waved and toothed, totally unlike thoſe of *C. pratenſis*. Flowers large, white or cream-coloured. Antheræ violet, of which colour the baſe of the petals often partakes. Style a little elongated and oblique, as Mr. Curtis well remarks. Pods erect, rather thicker than in the *pratenſis*. The leaves might be gathered by miſtake for Water-creſſes. They are pungent, but would ſoon be diſcovered by their nauſeous bitteriſh taſte. Our ſpecimen was ſent from Ripon by Mr. W. Brunton.

March 1802. Published by J. Sowerby, London.

ARTEMISIA maritima.

Sea Wormwood.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked or downy. *Seed-down* none. *Cal.* imbricated, the ſcales roundiſh and cloſed. *Florets* of the radius awlſhaped, undivided.

SPEC. CHAR. Leaves in many deep diviſions, downy. Cluſters drooping. Receptacle naked. Female florets about three.

SYN. Artemiſia maritima. *Linn. Sp. Pl.* 1186. *Sm. Fl. Brit.* 864. *Hudſ.* 358. *With.* 709. *Hull.* 182. *Relh. Suppl.* 2. 14. *Woodv. Med. Bot. t.* 122.

Abſinthium marinum album. *Raii Syn.* 188. *n.* 2. alſo *n.* 3, 4, 5 and 6.

NOT uncommon in muddy places about the ſea coaſt, flowering in Auguſt and September.

Root woody, perennial. Whole plant clothed with a grey cottony down. Stems erect or proſtrate, panicled, leafy, a foot or more in height. Lower leaves pinnate; leaflets three-cleft; upper ones variouſly, but for the moſt part deeply, divided; ſegments all entire: uppermoſt leaves often ſimple. Cluſters of flowers generally more or leſs drooping. Flowers ovate. Calyx woolly; its ſcales browniſh, with a membranous edge. Receptacle quite naked. Florets of the radius never more than 2 or 3, and often wanting.

This plant has the qualities of the Common Wormwood, but is leſs bitter, and more agreeable in its flavour. Some occaſional variations in this reſpect, as well as in the breadth and hoarineſs of the leaves, denſity of the cluſters, and ſize of the flowers, gave occaſion to our botaniſts in the time of Dillenius to make ſeveral ſpecies, which he judiciouſly conſiders as varieties. We have actually traced moſt of them to their origin, and ſtrongly ſuſpect the *A. cæruleſcens* of Hudſon to have been no other than the *maritima*, with broader and more ſimple upper leaves than uſual.

G.R. III.
BRITISH MUSEUM

March 1 1802 Published by J.t Stockdale

GNAPHALIUM luteo-album.

Jerſey Cudweed.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Down* rough or feathery. *Cal.* imbricated; with coloured membranous ſcales. *Florets* of the radius awlſhaped. Some *florets* of the diſk occaſionally abortive.

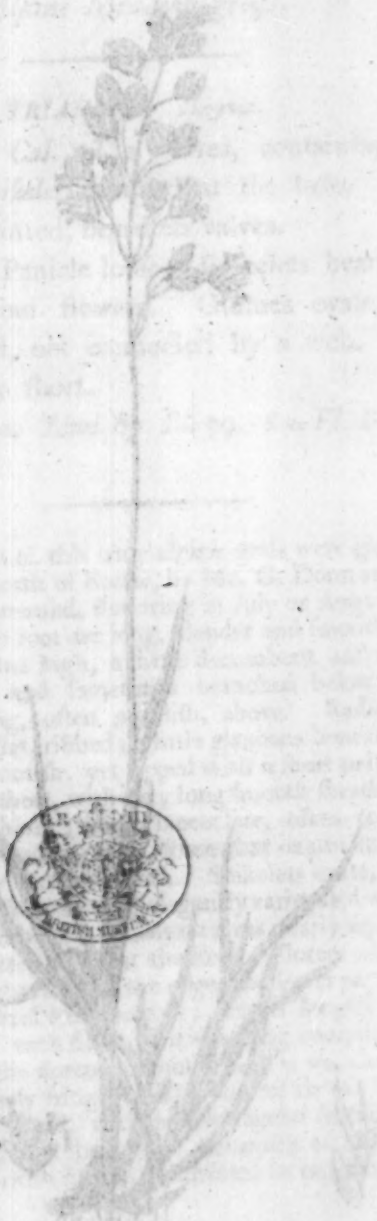
SPEC. CHAR. Herbaceous. Leaves half embracing the ſtem, ſwordſhaped, waved, woolly on both ſides: the lower ones blunt. Flowers cluſtered.

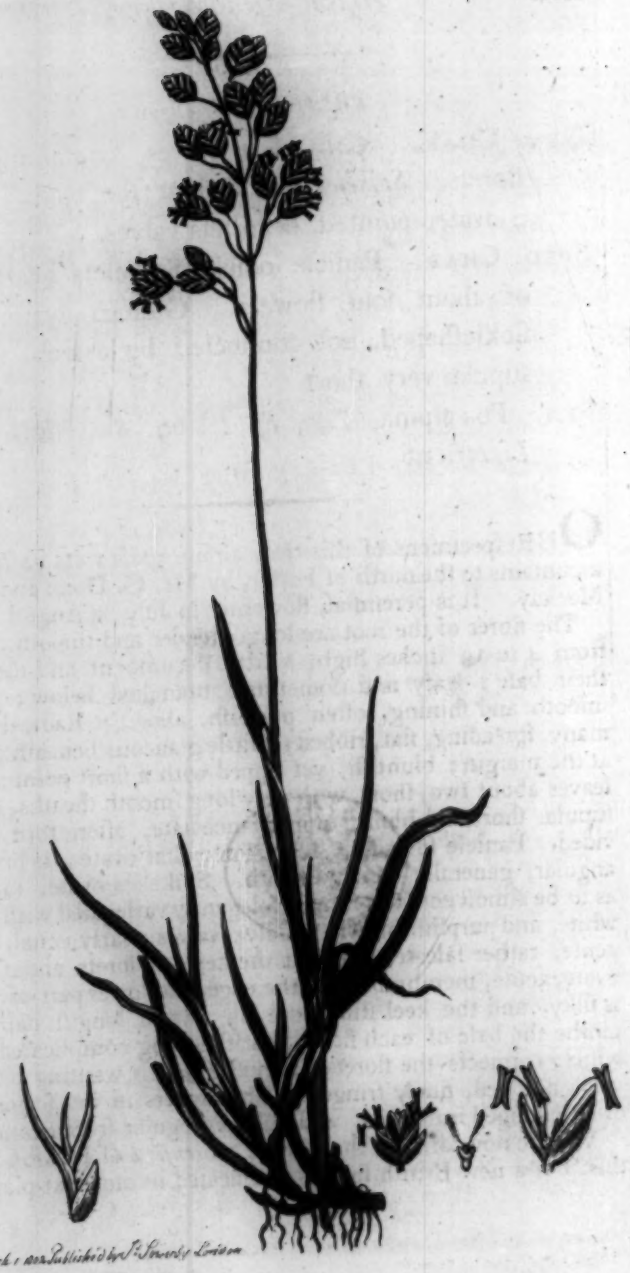
SYN. Gnaphalium luteo-album. *Linn. Sp. Pl.* 1196. *Sm. Fl. Brit.* 867. *Hudſ.* 359. *With.* 712. *Hull.* 183. *Dickſ. H. Sicc. faſc.* 5. 13.

Elichryſum ſylveſtre latifolium, capitulis conglobatis. *Raii Syn.* 182.

RAY and his friends made no ſcruple of allowing a place in the Britiſh Flora to the plants of Jerſey and Guernſey, though thoſe of Gibraltar might almoſt as well be admitted. The *Gnaphalium* now before us is ſaid to be very frequent in dry barren places in the firſt-mentioned iſland, flowering in July and Auguſt. Our ſpecimen however is of Engliſh growth, and, as Mr. Relhan thinks, indubitably wild, having been found by him in the road from Hanxtown to Little Shelford, Cambridgeſhire, far from any houſe (nor is it indeed a garden plant), alſo in a gravel-pit a quarter of a mile from the road. We give it on that gentleman's authority; and the only queſtion can be, whether its very volatile ſeeds could have been wafted thither from the botanic garden at Cambridge.

Root annual, ſmall. Whole herb clothed with white lax cottony down. Stems ſpreading at the baſe, about a foot high, or more. Leaves alternate, ſomewhat revolute and waved. Flowers many in a denſe terminal woolly cluſter. Calyx pale-yellow, ſhining. Hermaphrodite florets few, yellow, central, 5-cleft; female ones numerous, redder, awlſhaped, with a red ſtigma. Seeds all fertile, ſmall, rough.





March 1 1822 Published by J. Sowerby, London

POA alpina.

Alpine Meadow-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the baſe. *Cor.* of 2 ovate, pointed, beardleſs valves.

SPEC. CHAR. Panicle looſe. Spikelets heartſhaped, of about four flowers. Glumes ovate, rather ſickleſhaped, not connected by a web. Lower ſtipulæ very ſhort.

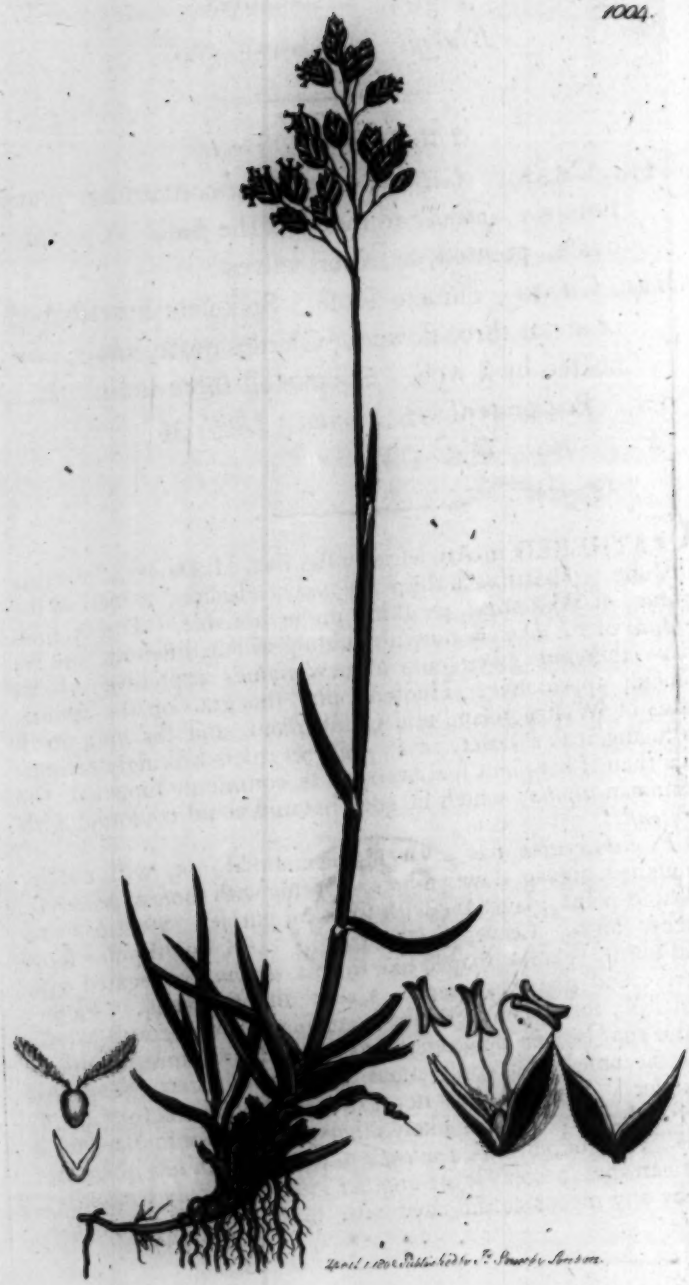
SYN. Poa alpina. *Linn. Sp. Pl.* 99. *Sm. Fl. Brit.* 100. *Lightf.* 96.

OUR ſpecimens of this truly alpine graſs were gathered on mountains to the north of Forfar, by Mr. G. Donn and Mr. J. Mackay. It is perennial, flowering in July or Auguſt.

The fibres of the root are long, ſlender and ſmooth. Stems from 4 to 12 inches high, a little decumbent and rooting at their baſe; leafy and ſometimes branched below; naked, ſmooth and ſhining, often purpliſh, above. Radical leaves many, ſpreading, flat, ribbed; a little glaucous beneath; rough at the margin; bluntiſh, yet tipped with a ſhort point: ſtem-leaves about two, ſhort, with very long ſmooth ſheaths. Lower ſtipulæ ſhort and blunt; upper lanceolate, often torn or divided. Panicle ſpreading, ſhort, ſomewhat ovate; its branches angular, generally nearly ſmooth. Spikelets ovate, ſo broad as to be almoſt cordate, ſhining, elegantly variegated with green, white, and purpliſh brown. Calyx-valves nearly equal, ovate, acute, rather falcate, rough at the keel. Florets about four, ovate, acute, membranous at the edge, the lower part of which is ſilky, and the keel ſtill more ſo; ſeveral longiſh hairs alſo clothe the baſe of each floret, but the long complicated web, which connects the florets of moſt *Poæ*, is wanting. Inner valve notched, finely fringed.—The flowers in wet ſeaſons are often changed into buds, without any regular fructification.

We are now ſatisfied that the *P. pratenſis* β of Hudſon is not this, but a new Britiſh ſpecies, delineated in our next plate.

G.R.
III.



POA ſubcærulea.

Blueiſh Meadow-graſs.

TRIANDRIA Digynia.

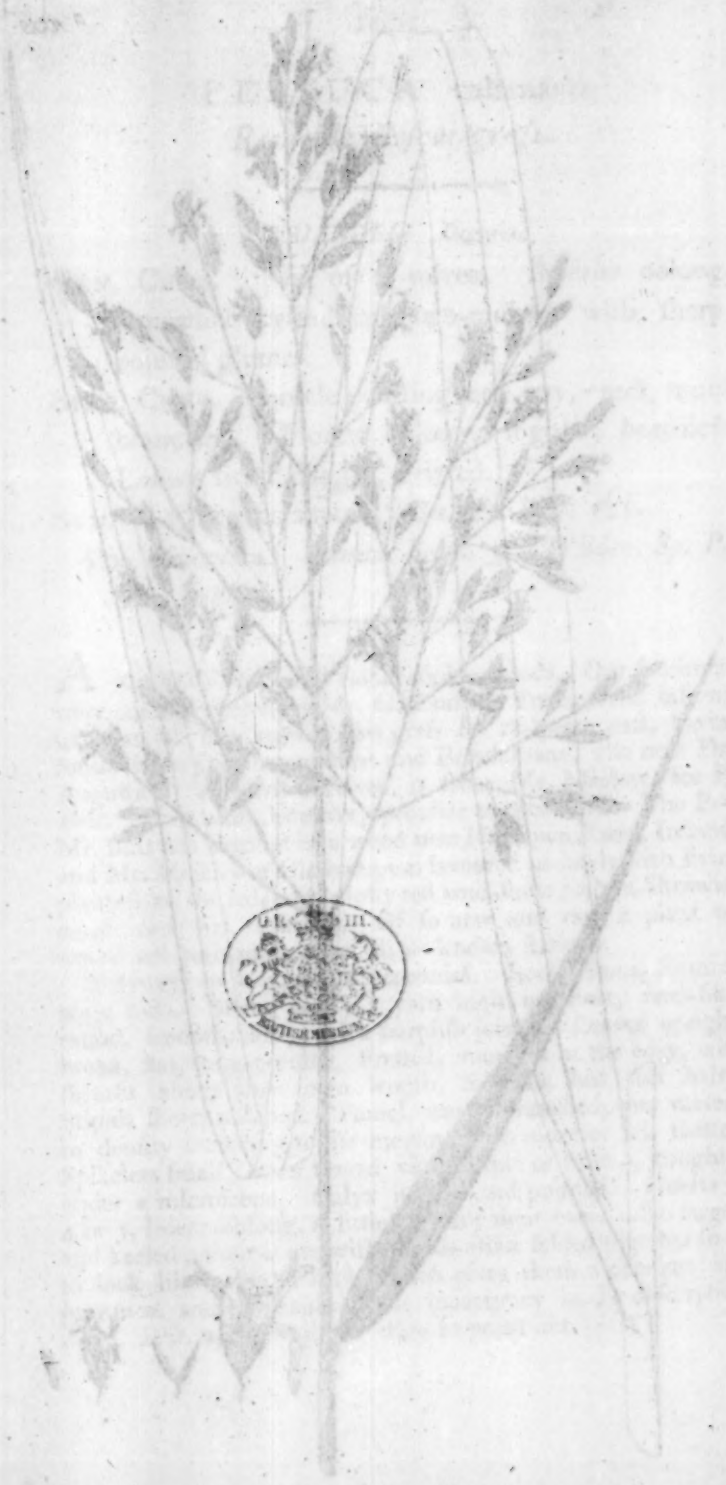
GEN. CHAR. *Cal.* of 2 valves, containing many florets. *Spikelet* rounded at the baſe. *Cor.* of 2 ovate, pointed, beardleſs valves.

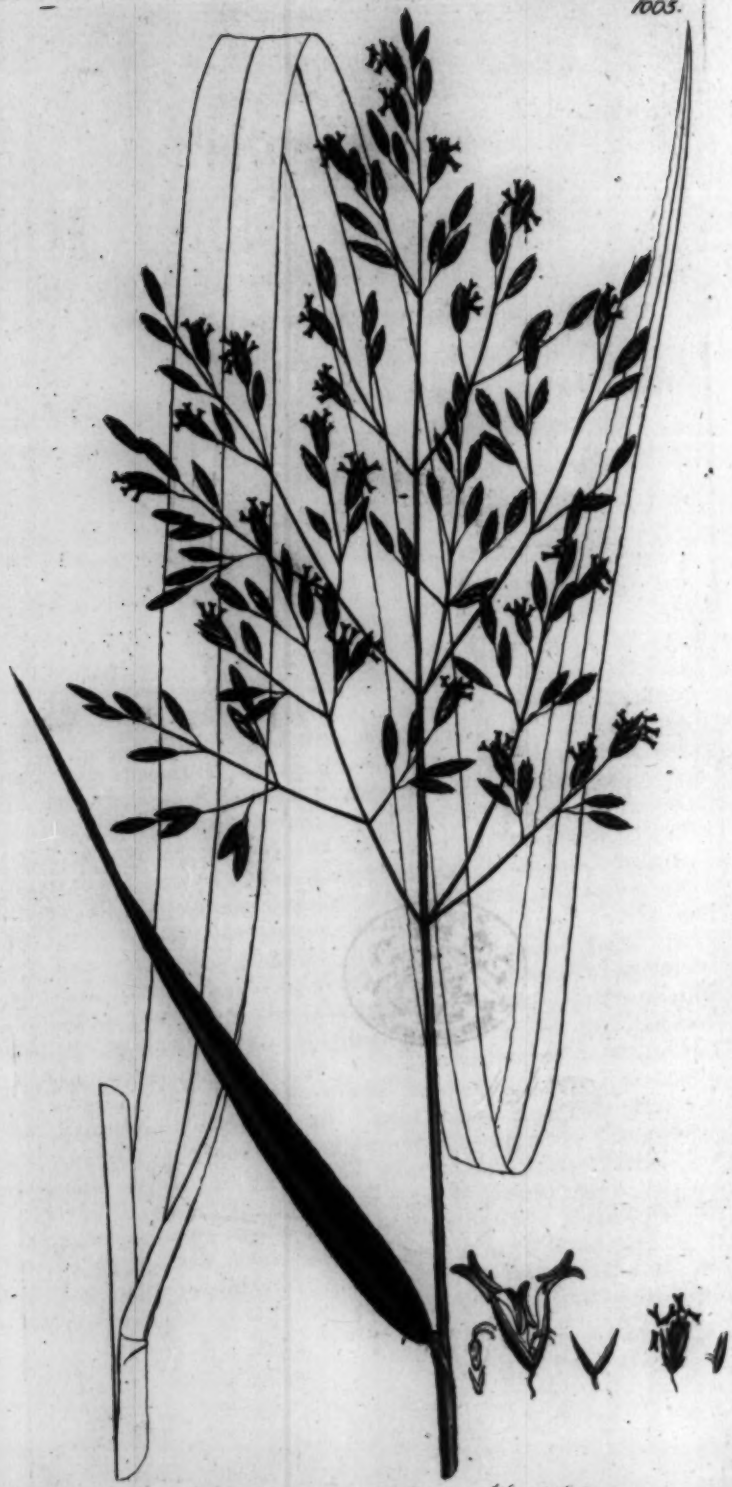
SPEC. CHAR. Panicle looſe. Spikelets heartſhaped, of about three flowers. Glumes ovate, acute, connected by a web. Stipulæ all ſhort and blunt.

SYN. Poa pratenſis β, alpina. *Hudſ.* 39.
P. glauca. *With.* 148.

GATHERED in Angleſea by the Rev. H. Davies, flowering in June. That this is the *P. alpina* of Hudſon, as well as the *glauca* of Withering, we think unqueſtionable. The original *glauca* of *Fl. Dan.* is notwithſtanding widely different, and we have therefore given ours a new name, expreſſive of its blueiſh appearance. Hudſon found this graſs on the mountains of Weſtmoreland and Cumberland, and his opinion in reducing it to a variety of *P. pratenſis* is leſs ſtrikingly erroneous than if his plant had been (as is commonly ſuppoſed) the Linnæan *alpina*, which no good botaniſt could confound with *pratenſis*.

P. ſubcærulea has a creeping perennial root, with much-branched, zigzag, downy fibres, agreeing with thoſe of *pratenſis*. Whole plant glaucous, with tints of purple. Stem 6 to 10 inches high. Leaves ſhort, ſtraight. All the ſtipulæ ſhort and blunt. Panicle ſhaped like that of *alpina*, variegated with purple and glaucous green. Calyx almoſt awned. Florets generally three, connected by a copious ſoft white web, whoſe fibres may be ſeen between them even in their natural ſituation, but become moſt conſpicuous when the florets are pulled aſunder. This web does not exiſt in *P. alpina* or *cæſia*, *Fl. Brit.*, the only 2 ſpecies likely otherwiſe to be confounded with this. It is found in *P. pratenſis*, but in a much leſs quantity; nor can that ſpecies, if its angular glumes be duly conſidered, be by any means confounded with this.





Drawn & Published by J. Sowerby, London.

FESTUCA calamaria.

Reed-like Feſcue-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, ſomewhat cylindrical, two-ranked, with ſharp pointed glumes.

SPEC. CHAR. Panicle pointing one way, erect, much branched. Florets oblong, angular, beardleſs. Leaves ſword-ſhaped, ſtriated.

SYN. Feſtuca calamaria. *Sm. Fl. Brit.* 121.

Poa trinervata. *Schrad. Spicil.* 3. *Wilden. Sp. Pl. v.* 1. 389.

A NATIVE of moiſt rather alpine woods. Our ſpecimens were communicated by Mr. G. Donn of Forfar, who informs us that he has known this graſs for 12 years paſt, having found it in Dumbartonſhire and Breadalbane, alſo near Fort Auguſtus. We firſt received it from Mr. Mackay, ſee *Fl. Brit.* It is not, however, peculiar to Scotland. The Rev. Mr. Butt has found it in a wood near Newtown Barry, Ireland; and Mr. Moſeley of Glaſhampton favoured us lately with living plants from the ledges of a lofty red ſand-ſtone rock in Shrawley wood, near his reſidence. Of ſo new and rare a plant we would not omit to mention all its known ſtations.

It flowers in July, and is perennial. Root fibrous, forming large tufts. Stems erect, a yard high or more, reed-like, round, ſmooth, leafy, with purpliſh joints. Leaves upright, broad, flat, long-pointed, ſtriated, roughеſt at the edge, with ſheaths about their own length, roughiſh but not hairy. Stipula ſhort, notched. Panicle much-branched, very various in denſity according to its meeting with more or leſs ſhelter. Spikelets ſmall, often tinged with purple or brown, roughiſh under a microſcope. Calyx narrow and pointed. Florets 3, 4 or 5, linear-oblong, a little diſtant; their outer valve largeſt and keeled; their inner with 2 ribs often folded together ſo as to look like a ſimple keel, which gives them a peculiar appearance, and has cauſed ſome inaccuracy in the deſcription in *Fl. Brit.* which it is our duty to point out.

G.R. III.

April 1. 1802 Published by Jd. Sowerby, Lond.

BROMUS diandrus.

Upright annual Brome-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, 2-ranked. *Awn* from below the top. *Inner huſk* fringed.

SPEC. CHAR. Panicle upright, ſpreading, ſcarcely ſubdivided. Florets lanceolate, ribbed, furrowed, with only two ſtamina.

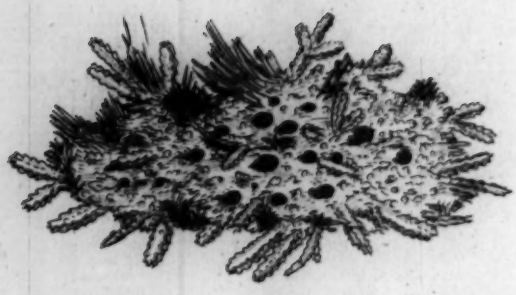
SYN. Bromus diandrus. *Curt. Lond. faſc.* 6. *t.* 5. *Sm. Fl. Brit.* 135. *Tr. of L. Soc. v.* 4. 296.

B. madritenſis. *Linn. Sp. Pl.* 114. *With.* 161.

B. muralis. *Hudſ.* 50. *Sibth.* 48.

Feſtuca avenacea ſterilis, paniculis conſertis erectioribus, ariſtis brevioribus. *Raii Syn. ed.* 2. 261.

OUR ſpecimens of this *Bromus* were gathered at St. Vincent's rocks, Briſtol, by the Rev. Mr. Hemſted. It grows moſtly on ſandy barren ground, walls, and waſte places, but not commonly. Mr. Curtis, who is entitled to great praiſe for firſt obſerving the flowers to be diandrous, found it at Batterſea. The late worthy Dr. Withering made the ſame remark in Portugal, and we are thus enabled clearly to diſtinguiſh the preſent ſpecies from the common *B. ſterilis*. Indeed it differs from that alſo in being lower, leſs downy, with an erect more compact panicle, which, though ſomewhat ſpreading, is never lax or pendulous. The hue of its ſpikelets is alſo more frequently purpliſh. The nerves of the glumes are in general leſs prominent, and the two principal ones moſt conſpicuous on each ſide ſtand in this ſpecies peculiarly cloſe together.—The root is ſmall and annual; the flowers are perfected in June. Dr. Withering was perſuaded that this graſs, ſown in the autumn, might afford a good crop of early fodder in the ſpring, and be worth the huſbandman's attention.



April 1 1802. Published by Jas Sowerby, London.

LICHEN fuſco-luteus.

Browniſh-yellow Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

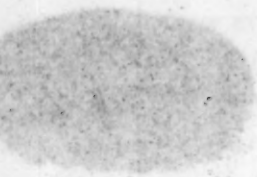
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſt thin, continued, even, very white and ſmooth. Shields elevated, flat, dull-yellow, mealy, with a border of the ſame colour.

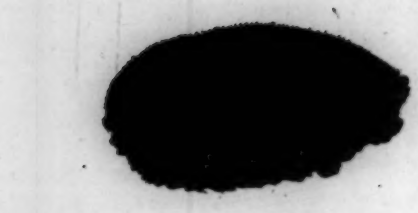
SYN. Lichen fuſco-luteus. *Dickſ. Crypt. faſc.* 2. 18. *t.* 6. *f.* 2. *H. Sicc. faſc.* 4. 25. *With. v.* 4. 24. *Hull.* 291. *Achar. Prod.* 72.

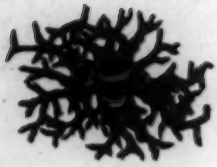
WE firſt became acquainted with this Lichen in the year 1782, by means of ſpecimens from the Rev. Mr. Stuart, who gathered them on the Highland mountains of Breadalbane. Mr. Dickſon has alſo found it on Ben Lawers and other mountains. Foreign botaniſts ſeem quite unacquainted with it.

The cruſt ſpreads widely over decayed moſſes, ſprigs of Heath, and other ſmall plants, cloſely enveloping them ſo as to aſſume a branched or ſhrubby appearance (ſee Mr. Dickſon's figure), which happens in like manner to *L. upſalienſis* and a few others. This cruſt when ſeparately examined is found to be very thin, even and delicate, almoſt membranous, very white and ſomewhat poliſhed. The ſhields grow either cluſtered or ſcattered. When young they are of the ſize of a moderate pin's head, roundiſh, with a thick inflexed border, all over of a dull yellow, being clothed with ochrey powder which is eaſily rubbed off. When full grown they are about 2 lines in diameter, elevated on a ſhort thick ſtalk, their diſk flat, their margin waved and narrower, though always viſible enough, their colour ſtill more dull and browniſh; indeed the diſk when deprived of its powdery covering appears quite brown or ſnuff-coloured.



G.R. III.





April 1. 1802 Published by Jas Sowerby, London.

LICHEN ſubtilis.

Fine-ſpun Gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Gelatinous, dull green, very minute. Leaves ſomewhat imbricated, much branched, linear, bluntiſh. Shields central, cluſtered, with a flat browniſh diſk, and narrow even border.

SYN. Lichen ſubtilis. *Schrad. Spicil.* 95. *Bernhardi in Schrad. Journ. v.* 1. 5. *t.* 2. *f.* 6. *Achar. Prod.* 136. *Dickſ. Crypt. faſc.* 4. 25.

MR. EDWARD FORSTER diſcovered this Lichen near Hale End, Walthamſtow, in 1791. It has ſince been found in Scotland and Ireland by Mr. Brown.

This is one of the moſt minute plants hitherto detected, and, as its firſt deſcriber the accurate Dr. Schrader obſerves, would ſcarcely be viſible to the naked eye, did it not grow in patches, which are from half an inch to an inch and half broad, fixed to the naked earth on a clay ſoil. Our ſpecimens were ſent from Coltishall, Norfolk, by Mr. Turner.

The whole plant is of a dull green, gelatinous and pellucid when moiſt, black when dry. The fronds or leaves ſpread from a centre, and are a little imbricated or entangled, variouſly and repeatedly branched into narrow, waving, entire, bluntiſh, fleſhy ſegments, which under a high magnifier appear granulated. The ſhields are central, cluſtered (in very ſmall plants only ſolitary,) ſeſſile, top-ſhaped, having a flat or rather elevated browniſh granulated diſk, and a narrow entire green border.

On a careful compariſon of this with our *L. cretaceus*, *v.* 11. *t.* 738, under a good microſcope, we find the fronds indeed very ſimilar in ſome inſtances, but the ſhields of the latter are redder, their margin pale brown, and thicker than in *L. ſubtilis*.